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ABSTRACT

This report will cover assumed and ongoing projects that took place between July 1, 1971 and September 1, 1972, either directly or in conjunction with the Committee to Investigate Teaching, University of Alberta, Canada. This report classifies projects into three groups: (1) those studies that have been initiated in either 1970-71 or 1971-72 and are now complete, (2) those studies that have been initiated in 1970-71 or 1971-72 and have been abandoned, and (3) those studies that have been initiated in 1970-71 or 1971-72 and are still in progress. The penultimate section is devoted to new projects that have been submitted to the Committee either by its own members or from other academic staff on campus. Finally, the report presents recommendations that the Committee to Investigate Teaching has derived from its completed projects. (Author/PG)

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PROJECT REPORT TO THE GENERAL FACULTIES COUNCIL'S EXECUTIVE COMMITTEE FOR THE ACADEMIC YEAR 1971 - 1972;

Submitted by the Committee to Investigate Teaching

Dr. R. W. F. Wilcocks, Chairman

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PROJECT REPORT TO THE GENERAL FACULTIES COUNCIL'S EXECUTIVE COMMITTEE FOR THE ACADEMIC YEAR 1971 - 1972;

Submitted by the Committee to Investigate Teaching

Dr. R. W. F. Wilcocks, Chairman

This is the second annual report of projects which were either undertaken directly by the C.I.T. or conducted in conjunction with and at the behest of other members of the U of A. This report will cover assumed and ongoing projects which took place between the dates of July 1, 1971 (the submission date of the first report) and September 1, 1972 (the submission date of the second report).

A fourteen-month "annual" report was undertaken at this point for two reasons. Firstly, the Committee wishes to provide as up-to-date a report as is possible. Secondly, the Committee has found that a September 1 submission date is more natural in the annual cycle of the academic calendar than the July 1 date.

The Committee to Investigate Teaching, in its initial report to the Executive Committee, had promulgated its Frame of Reference. The Committee continues to observe these self-defined dictates. Those readers who are not familiar with the Committee's Frame of Reference will find a copy appended (see Appendix I).

This report classifies projects into three groups: (I.) those studies which have been initiated in either 1970-71 or 1971-72 and are now complete, (II.) those studies which have been initiated in 1970-71 or 1971-72 and have been abandoned, and (III.) those studies which have been initiated in 1970-71 or 1971-72 and are still in progress. A penultimate section will be devoted to new projects which have been submitted to the Committee either by its own members or from other academic staff on campus. Finally, this report will present the recommendations which this Committee has derived from its completed projects.

I. Projects Which Have Been Initiated and Completed

Eight studies of various length, intensity and focus have been completed. Each is presented below.

1. Introductory Psychology 202

In the spring of 1970, Dr. Allen, then Chairman of C.I.T., circulated a memo to all members of the teaching staff asking them if they had any innovative changes that they were planning to make in their teaching. If this were the case, the Committee would be interested in knowing about it. One of the respondents to this memo was Dr. C. H. Beck, of the Department of Psychology. Dr. Beck, as coordinator for the Psychology 202 course, was concerned about the present instructional format of that course. He and some of his colleagues teaching Psychology 202 wished to try an individualized instruction approach to introductory psychology. This new approach had been employed, successfully, elsewhere. Two substantive changes were proposed by Dr. Beck for Psychology 202. Firstly, the student would be required to take a test at the end of each of seven units, rather than the usual midterm and final examinations. Students had to achieve a high "criterion" score to pass each unit's test. If they failed they were permitted to try two more times. The student's course grade was obtained from the average of his best scores on the tests of each of the seven units.

Secondly, the students enrolled in sections of Psychology 202 taught in this new manner were to receive more individualized instruction. The Department of Psychology provided some GTAs to tutor students having difficulty with a particular unit.

The Committee to Investigate Teaching was able to assist Dr. Beck and his colleagues by providing a programmer to write a machine record program designed to record and up-date each student's progress.

During the academic year 1970-71 five of the seventeen introductory Psychology 202 sections were taught using this new approach. The results of this approach, when compared to the results reported in the literature, were not as striking as one would expect. Dr. Beck and his colleagues attribute this to alternations which were made in the formation of the new approach at Alberta. viz. (1) Because budget monies were limited, the ratio of GTA tutor to students was increased from twelve students per tutor (as reported in the literature) to fifty students per tutor. (2) The precise requirements for successful completion of the course were not as explicitly defined here as they were in the literature. (3) The criterion score of "pass" on each unit was too high, and students became discouraged and disheartened by continued failures. (4) The unit tests were fewer in number and covered more material than those reported in the literature.

Because of the somewhat disappointing results of his study the new approach was not attempted the following year. The C.I.T. endorses the recommendations by Beck, et. al. (See Appendix II for their complete report). These recommendations will be presented and discussed in the concluding section of this report.

2. Library Study

The availability of top quality scholarly works as aids to teaching is of concern to the Committee to Investigate Teaching. As a consequence, two authors in the field of psychology who have well-established reputations in their respective areas were selected for a pilot study. The particular technique employed in this pilot study is based on the invisible college concept. This concept holds that, within each discipline, certain scholars will communicate with one another regardless of their respective geographical location. The Committee's approach was to see if it could firstly identify this invisible network; secondly, identify the other members of the invisible college by a "snowball sociometry" technique; and finally, determine how many publications of the members of this invisible college were currently held by the U of A library.

Starting with these two authors, the Committee's research staff soon obtained thirty-six additional names. Time restraints did not allow the research staff to assess the current periodical citations of these authors, but the 1970 edition of Books in Print was examined closely. Seventeen books had been published by the thirty-six authors, and of the seventeen books, all but three were in the U of A library. Two of those three books had just been published (i.e., 1970) and one was printed in 1968. (See Appendix III for the full report.)

One might conclude that our library holdings are first rate. This may not be a warranted assumption, as the two authors in the pilot study had had well-established reputations in their respective areas. The quality of a library collection in a particular subject area depends as much on having a publication of the "emerging" scholar as well as it does on having the works of an established scholar. This pilot study was unable to examine either the extent of the library's holdings relative to works by emerging scholars, or the quality of the output by these emerging scholars.

The C.I.T. has continued its dialogue with the Coordinator of Collections Development for the U of A library on the topic of having quality works available to the academic community. Although the Committee cannot expand its investigation along these same lines at this time, it does wish to find a means of assessing the quality of the million titles now in residence at the U of A library.

3. The Environmental Assessment Technique

The Committee to Investigate Teaching considered a knowledge of the characteristics of the student body to be a prerequisite to any examination of pedagogical techniques. Two basic approaches were employed; the first was that of the environmental assessment techniques developed by Astin and Holland in the late 1950's, and the second was an index of college activities developed by Pace and Stern at the University of California.

The basic approach in the environmental assessment technique resides in Holland's theory that individual students tend to select those career patterns and disciplines which best fit their personalities. Six personality configurations are identified (e.g. scientific, business and practical, artistic, etc.)

Five major Canadian universities were surveyed: McGill University, the Universities of Saskatchewan, Calgary, British Columbia and Toronto. The registrar in each university was asked to supply enrollment statistics, by department and by major area of specialization, for all students enrolled. Three of these five universities were able to provide usable data and comparative profiles of each of the three is presented in Appendix IV.

The conclusion of this study is that while Holland's theory has general applicability there are many procedural and technical problems involved which make inter-institutional comparison extremely difficult. Some institutions, such as the University of Saskatchewan (Saskatoon), do not allow their students to elect a major until the end of their second year. The second major drawback in this particular study was that the profiles generated provide some picture of the total institution but do not necessarily describe the individual subcultures of students within each institution.

4. Experimental Classroom: Room 289 Central Academic Building

In November, 1970, Dr. W. Allen, then chairman of the Committee to Investigate Teaching, and other members of the Committee to Investigate Teaching approached Dr. Neal with the proposal to furnish one of the new classrooms in the Central Academic Building as an alternate teaching facility. The type of furnishings in this classroom was a substantial deviation from those found in the more traditional classrooms. The basic idea is to learn what impact the traditional setting had on students on their ability to learn when compared to a different environment. Due to administrative procedures, this particular room was not furnished in time for the second term of 1970. It was, however, ready in September, 1971.

Eight instructors from the Departments of English, Educational Psychology, Drama, Political Science, History, Economics, Psychology and the Faculty of Physical Education taught eleven first term and year-long courses in this room. Three other instructors taught four more classes during the second term.

Based upon the comments and responses to questionnaires which were administered to the students taking these courses in Room 289, it would appear that the environment does have a beneficial effect on the general attitude set of the students. Quite frequently both student and instructor would comment the room was relaxing and comfortable, yet it managed to increase the communications both in terms of intensity and frequency between student and instructor and between student and student.

Based upon the first return of the Committee's study of this room, the Committee investigated the possibility of creating another room of similar nature. This particular room, Room M-232, Biological Sciences Building, will be dealt with in a later section of this report.

In the Spring of 1972 the Committee's research team administered a questionnaire to all students enrolled in second term courses and year-long courses. The information from this questionnaire is in machine-readable form but has not yet been analyzed. A report will be forthcoming.

5. The 1970-1971 Course Guide

The editor of the 1970-1971 Course Guide approached the Committee to Investigate Teaching, seeking assistance in developing a new style questionnaire for the Course Guide. The Students' Union had proposed to expand its particular Course Guide purview to include courses taught in Business and Commerce, Engineering, and Physical Education. For the Interim Report on the 1971-1972 Course Guide and the extent of the Committee involvement in this project see Section III under the heading "1971-1972 Course Guide."

6. Faculty Attitudes Questionnaire

The Committee to Investigate Teaching realized that, if it is to assess the profile of the student body as a prerequisite to the investigation of learning, it also must develop some feeling for the profile of the academic staff. As a result a questionnaire to the academic staff was formulated in the Fall of 1970 and administered in the Spring of 1971. This particular attitude survey had a four-part objective. Its first objective was to provide information from the faculty concerning the honours programs in the faculties of Arts and Science. This particular study was done in conjunction with a request by the Academic Development Committee to the Office of Institutional Research to gather information about the faculty and student opinion of the honours program. Ms. Iris Jackson, a member of the Research Staff of the Office of Institutional Research and Planning and also a member of the Research Staff of the Committee to Investigate

Teaching, undertook this project. The overwhelming response from the academic staff, from students who were in the honours program, from general program students, from students who had graduated with honours degrees, and from students who had withdrawn from the honours program but were still at the University of Alberta, was that the honours program was a highly desirable program in both faculties; therefore it should be continued. This particular report was made to the Academic Development Council. It may be read in full detail in Appendix VII. The role of C.I.T.'s faculty attitude questionnaire was to devote a final page of the questionnaire to the faculty responses concerning the honours program.

A second objective of the faculty attitudes survey was to assess the faculty's attitudes towards contemporary issues on campus. The questionnaire as mailed to members of the academic staff the year after the preliminary report of the LeDain Commission had been published and during the period when the General Faculties Council was debating the question of student representation on G. F. C. Two pairs of questions dealing with changing and liberalizing the law, respectively, of both habit-forming and hallucinatory drugs were asked of the faculty. In light of student referenda it would appear that members of the academic staff would prefer to see the laws concerning habit-forming and hallucinatory drugs changed, but not liberalized.

Relative to the issue of student representation on the General Faculties Council the attitudes of the faculty members in this sample was that more students ought to be on General Faculties Council, but some number less than parity should be entitled to vote. The complete report of the academic staff members' reaction to current issues is located in Appendix VI.

The third purpose of this report was to provide faculty attitudes for comparison with student attitudes about college activities at the University of Alberta. This particular study used questions which were similar to the questions employed by the Committee to Investigate Teaching's questionnaire of the students dealing with an Index of College Activities. These particular questions were modified, primarily by altering the subject of the statement. viz, "I often feel that I am competing with other students for high grades," for the student compared to "Students often feel that they are competing with other students for high grades," for the faculty. The second half of this particular two-group comparison, the questionnaire to the students, was mailed to a sample of students in the Spring of 1972. Data from the returning questionnaires have now been converted to machine-readable form. Computer programs are being run and an analysis and report will be forthcoming.

The final purpose of the Faculty Attitudes Questionnaire was to examine the general characteristics of the instructional staff of the U of A along two sociological dimensions. Talcott Parson (1951) and Alvin Gouldner (1957) suggest that some people have a cosmopolitan outlook in their daily lives while others tend to be more locally oriented. Gouldner, in his study at Antioch College in the U.S.A. sought to identify this particular attitude set among members of the college. In a questionnaire to faculty members he was able to get together a sufficient amount of data to factor analyze the responses and arrive at three sets of local personalities and two sets of cosmopolitan personalities. Those items with the highest factor loadings have been used in this particular Faculty Attitudes Questionnaire. The data is at hand - a report will be forthcoming.

7. The Graduate Teaching Assistantship Survey

This report was initiated by the Office of Institutional Research and Planning at the request of one of the members of the Committee Investigate Teaching. Questionnaires were distributed to Graduate Teaching Assistants in the Spring of 1971. The data was captured and analyzed and a report was written in the academic year 1971-72.

Two main areas were under study: a) the perception of the graduate student of his assistantship and b) the degree of interaction which the graduate teaching assistant perceives occurring between himself and his supervisor.

The graduate student's perception of his assistantship was divided into two areas: financial need and perceived satisfaction with the assistantship. The Graduate Teaching Assistant appears able to subsist on the monies which the University pays him, although 19 of the 379 GTA's indicated in the questionnaire that they were currently holding jobs outside the University. In addition, of the 144 GTA's who indicated they were married, all but 10 felt it was necessary that their spouses work in order to make ends meet.

One perturbing feature of the responses of the Graduate

Teaching Assistants is that they tend to perceive of their appointment as "just a job." It is a special kind of job, however, because it is embedded in the current aspirations of most of the GTA's. 80% of the GTA's who responded viewed their appointment as an opportunity to develop professionally as well as an opportunity for personal intellectual development. Work as a GTA, however, led many of the GTA's who responded to the questionnaire to the conclusion that they did not have time enough to bring their own academic work as a graduate student up to the standard of excellence they felt they could have attained.

Concerning the second major division, the perceived interaction between the GTA and his supervisor, the information furnished by the graduate students clearly indicates that rapport exists between most of the GTA's and their supervisors. Not only does the communication between supervisor and GTA appear to be good, but many of the GTA's express a feeling of being able to approach and discuss course-related problems with their supervisors. More details are presented in the report itself (See Appendix VIII.)

8. A Review of Educational Indexes and Abstracts

The final report completed at the time of this report was a review of the indexes and the abstracting facilities in the University of Alberta library system. This particular task was done by a member of the Committee's research team, Ms. Joyce Chorney. Early in the academic year 1971-72, the Committee to Investigate Teaching expressed the need to have a central repository of material on teaching and learning. (See (a) in the Committee's Frame of Reference.) Such a repository would be made available to members of the academic staff at the University of Alberta in particular and to educators and interested laymen in general. The most logical site of such a repository would appear to be the files of the Office of Institutional Research and Planning, since that office was the one charged with the responsibility to assist the Committee to Investigate Teaching when the Committee first requested funds for a secretariat.

In the process of planning for such a repository it soon became apparent that the acquisition of some of the materials relevant to teaching and learning was beyond resources of the Office of Institutional Research and Planning. Firstly, it would be redundant to match the titles held by the Education Library. Secondly, the Office of Institutional Research and Planning has neither space nor funds nor personnel to provide the type and caliber of service which the Education Library and its staff can. It was decided instead to concentrate upon helping the researcher in his initial literary search. The library's card catalogue appears to provide an excellent mechanism for conducting a literature search among hardback publications, but is limited when it comes to searching articles, pamphlets and reports. The choice then evolved to an examination of a periodical indexing and abstracting systems. These systems appear to be less standardized than the card catalogue and have varying degrees of efficacy in identifying informational documents.

Ms. Chorney's task was four fold. Firstly, she was to review the index or abstracting publication itself, noting the numbers of periodicals which it surveyed and the extent to which the topics of teaching and learning was treated. Secondly, she was to make some determination of the availability of the particular periodicals surveyed in each index or abstract. Thirdly, she was to make an evaluation of the quality of the periodicals surveyed (are they hard data journals? Are they publications respected by members of the disciplines from which they spring?) Finally, Miss Chorney was to indicate which indexing and abstracting systems were most likely to provide the greatest amount of information on the topic that is of interest to the researcher. Ms. Chorney's full report is located in Appendix IX.

II. Report of Studies Which Have Been Initiated in 1970-71, 1971-72 and Which Have Been Abandoned

From time to time the Committee to Investigate Teaching has assumed some responsibilities for projects which have proved fruitless. When such a prognosis is clearly evident the Committee usually abandons the endeavor. Two of the studies which were reported on in the first annual report of the Committee to Investigate Teaching have now been abandoned.

1. Classroom Characteristics

During the academic year 1969-1970 the former timetabling officer, Mr. John Batt, designed a questionnaire which was administered to instructors. In this instrument he asked their opinions of acoustics, lighting, ventilation and other physical properties of the classrooms in which they taught. It was thought that these evaluations, coupled with the dimensions of the room and of the disiderata such as the numbers of student-stations, the floor on which the classroom is located, etc. may bring to light certain undesirable features of classrooms. With this information the Committee to Investigate Teaching could recommend, on the one hand, that classrooms with certain dimensions not be built, and, on the other hand, that new buildings have classrooms with desirable characteristics. The data described above was captured in machine-readable form, computer runs were made and analyzed. Some results were achieved, but a report will not be forthcoming for the following reasons:

A. The initial objectives of this particular study have been met. Mr. Batt, when he designed the study, sought to determine which classrooms were oppressive in terms of lighting, heating, noise, physical discomfort and other things of this nature. The Committee's Research Staff in the Office of Institutional Research and Planning were able to identify, based upon the returns of the instructors, the 50 rooms which received the worst evaluations and 50 rooms which received the best. This information was transmitted to Mr. George Earle, and it is our understanding that many of the 50 worst rooms have been converted to other uses (e.g. storage, lab space, etc.). In addition, every instructor was invited to write comments about the classroom on his questionnaire. These comments were transcribed and copies were sent to the Timetabling Officer and the Director of Building Services.

B. It had been demonstrated that the dimensions of the classrooms throughout the whole University are extremely similar. Hence the variation in the frequency distribution of the dimensions of these rooms does not permit any valid assessments of the changes the evaluators may have felt concerning these rooms.

It was therefore concluded that further investigation into the results of this questionnaire would be fruitless.

2. Philosophy 240

During the 1970-71 academic year the Undergraduate Studies Committee of the Philosophy Department suggested that Prof. E. W. Kemp assist them in a critical evaluation of the preparedness of prospective Philosophy 240 students to handle the material in an introductory philosophy course with perspicuity.

In accordance with its Terms of Reference, the Committee to Investigate Teaching agreed to provide certain technical aid to Prof. Kemp and the Undergraduate Studies Committee of the Philosophy Department. Specifically, Prof. Kemp's request to C.I.T. was to gather information on each student currently enrolled in Philosophy 240. The Committee wishes to emphasize that as far as this particular piece of research is concerned its involvement was strictly limited to offering certain technical services relating to the compilation of student course elections for those students enrolled in the Philosophy 240 course. The C.I.T. discharged its obligations when it provided the requested desiderata for the ad hoc Committee of the Department of Philosophy.

Shortly after this task was completed for Prof. Kemp, he left the University of Alberta to assume a position at Grant MacEwan College. His investigation ceased with his departure.

III. Reports of Studies Which Have Been Initiated in Either 1970-71 or 1971-72 and are Still in Progress

1. The Pass/Fail Experiment

On March 2, 1970, Mr. David Leadbeater, then President of the Student's Union, wrote the Executive Committee of the General Faculties Council relaying a Student's Union resolution that ". . . a system of pass/fail be instituted as the principle means of evaluating a student's achievements at the University of Alberta, . . . and that [the] grades kept. . . be in the pass/fail system, . . . and that written comments will accompany the pass/fail grade, . . . and that honours be given by special committees at the end of each degree programme for general honours and for honours in the student's field." Mr. Leadbeater's letter concluded with "We would hope that arrangements could be made to attempt to change to a pass/fail system as has been outlined at least as a trial in several courses." The Executive Committee of the General Faculties Council referred the matter to the Committee to Investigate Teaching on April 14, 1970. Members of the C.I.T. considered it at their next regular meeting and Dr. D. Schaeffer, a member of C.I.T., offered to supervise this project. During the year 1971-72 Dr. Schaeffer did the following: 1) he proposed a set of guidelines, which, after review by C.I.T., was adopted as modified; 2) he received and processed the requests from instructors to offer the pass/fail grading option to the students enrolled in their courses. (These requests were compiled and presented for approval to the Committee to Investigate Teaching); and 3) he designed and pre-tested a questionnaire based, in large part, on a study which was done by Bess and Hayes (1971) at the University of California (Berkeley).

Data from the questionnaires which were administered during the first year of the Pass/Fail Experiment have now been transferred to machine-readable form and the analysis is currently being made. As Dr. Schaeffer is currently on sabbatical, the research staff of the Committee to Investigate Teaching has assumed responsibility for this study. At the present time it is anticipated that three major reports will come out of this first year of the Pass/Fail Experiment. The first report will deal exclusively with the review of the pertinent literature on pass/fail as a grading mechanism. The second report will delve into the results of the questionnaire and the performance of the students at the University of Alberta who sat in the classes in which pass/fail was offered as an optional grading system. The third report will be a review of the current practices in administering the pass/fail grading system as it occurs on various campuses across Canada and the United States. It is anticipated that the committee will utilize this third report to formulate a new set of guidelines relevant to the Pass/Fail Experiment.

2. The Innovation in Curriculum in the Faculty of Business and Commerce

In accordance with Item C under the Frame of Reference of the Committee to Investigate Teaching (See Appendix I) two members of the Faculty of Business and Commerce approached the Committee to request its endorsement of a proposal to restructure the second year undergraduate curriculum in the Faculty of Business and Commerce. At its April 22, 1971, meeting the Committee voted to support this proposal in principle and encouraged these two faculty members to present their proposal to the Faculty of Business and Commerce. It was reported to the Committee that the Faculty of Business and Commerce also endorsed this idea, but that budgetary and staffing limitations prohibited its being implemented in the 1971-72 year.

The Committee understands that the Faculty of Business and Commerce is planning to proceed with this innovation for the academic year 1972-73. Complete details of the proposal, as submitted by Professors Rasmussen and Cullen, are located in Appendix X.

3. A Second Experimental Environment

Based upon the very favorable responses to the utilization of the experimental classroom in the Central Academic Building, the Committee to Investigate Teaching decided to continue its investigation of that learning environment as well as seek the means for furnishing a second classroom on campus in a similar manner. The following steps were taken: Firstly, the Timetabling Officer of the Registrar's Office was contacted and requested to provide the Committee with a list of classrooms on campus which were not being over-utilized. Approximately six rooms were so identified. Secondly, the members of the Committee to Investigate Teaching surveyed these rooms and selected Room M-232 in the Biological Sciences Building as having the greatest potential for conversion to an experimental learning environment. Finally, members of the Arts Faculty's

Department of Arts and Design were approached and invited to submit their ideas on the redesign of Room M-232.

As a result of these steps Prof. B. Bentz of the Department of Art and Design undertook the challenge of preparing a set of potential designs for this room. He was assisted by some of his graduate students as a graduate course project.

At its March 15 meeting Prof. Bentz and Mr. John Clancy presented three possible approaches to the restructuring of Room M-232 to the Committee. The Committee chose one of these alternatives and then set about seeking funds to accomplish refurnishing M-232.

Funds were obtained from Dr. Neal in late May of 1972. Mr. John Clancy and other graduate students in Art and Design began work on this room in mid-July. Room M-232 was available for classes at the beginning of the 1972-73 academic year.

For the second year in a row an open house was held in Room 289. Interested viewers of 289 were also directed to room M-232. At the time of this invitation, although all the major design alterations of M-232 had been completed, the seating blocks had not been covered and the carpeting for the floor had not yet arrived. Room M-232 will be fully furnished by September 20th, the date the carpet is due to be installed. The C. I. T. was pleased to note that the visitors included the President of NAIT, members of the staff of the Universities Commission and some of the members of the U of A Senate.

Certain problems which were present in the creation of

Room 289 were overcome in the refurnishing of Room 232. Firstly, one of the negative complaints about Room 289 was that the seating, the half-hexogonal boxes covered with broadloom, was too unyielding. The seating shapes in Room M-232 are, in essence, polyurethane blocks covered with a corduroy material. Secondly, the cost of converting Room 232 is much cheaper than was Room 289. Expensive errors were made in 289 in that more aluminum frames were ordered than were required and the broadloom was more expensive than that put into M-232. The original budget estimate for Room 289, Central Academic Building, was $6,500. This figure, when reduced by the approximate $3,000 of furniture which was removed from that room, nets to $3,500. The original gross budget figure for Room M-232 in the Biological Sciences Building is $2,500, and with only a few bills outstanding, it appears that the room will stay within its budget. The Committee has not yet determined what the cost of furniture originally in that room was, but it is safe to assume that it would reduce the original budget of $2,500 by half.

Finally, Dr. Neal and the Committee to Investigate Teaching, in converting this room, have assisted one of the teaching departments and a small group of graduate students on campus. Real educational benefits were obtained by Mr. Clancy and his fellow graduate students in that they were able to have firsthand experience in planning and completing an interior design project.

4. The 1971-72 Student Course Guide

Members of the Committee to Investigate Teaching worked with the editorial staff of the Course Guide in formulating a new Course Guide instrument. One particular feature of this instrument which appears to be objectionable, not so much to faculty as to students, is the section dealing with personality profiles of the students themselves. This particular set of desiderata should provide a valuable insight into the characteristics of the student body of the University of Alberta (see comments on Conclusions to the Environmental Assessment Techniques, *supra*.) Moreover, studies by McKeachie and others (1971) indicates that learning effectiveness among college students is at times linked to the personality of the student and of the instructor. As far as the Committee has been able to ascertain from the literature, little investigation has been done into the learning effectiveness of the two variables of student's personality and either a) course structure or b) pedagogical approach.

5. The Faculty's Questionnaire

As indicated in the discussion of the faculty attitudes questionnaire the final two phases of the four-part report of the faculty attitudes have yet to be completed.

6. Index of College Activities

In March, 1972, a sample of 10% of the students in the larger faculties and up to 50% of the students in the schools and smaller faculties was randomly drawn. Of the 3,268 questionnaires which were mailed out to the students in this sample, some 1,016 usable responses were returned, or roughly 30% of the sample.

This questionnaire seeks to assess the degree of student participation in a wide range of activities on campus. Further, it wishes to learn more about the attitudes of the students towards the University of Alberta as an educational institution and as a place for residence.

Quite often members of the academic staff tend to overlook the fact that the University exists, fundamentally, for the development of students. In recent years there seems to have been a trend away from this particular purpose as faculty and administrators have been forced by even larger enrollments to concentrate on adapting to ever-increasing organizational demands. But the public at large and the students in particular expect the University to function as a learning centre for the under-graduate. This survey hopes to provide some means of assessing the intensity and scope of student attitude towards university life and perhaps to suggest ways in which the largeness and impersonality of the university may be negated. More detailed information about the intent and scope of this particular study will be found in Appendix XI.

It is interesting to note that some of the items on the questionnaire sent to students have relevance to other ongoing studies. One section of this questionnaire was devoted entirely to the student's opinion of grading. The students were asked to rank order their preferences for stanine, pass/fail, letter grades, percentages, written evaluations and other forms of evaluation.

A second section of the questionnaire deals with student perception of campus life and, as had been indicated earlier, will be compared with similar information gleaned from the faculty questionnaire.

7. The Same Faces Studies

At its April 10, 1972, meeting the members of the Committee to Investigate Teaching discussed a letter which had been sent to Dr. Meloff, then Chairman of the Committee to Investigate Teaching, by Dr. Willard Allen, Associate V.P. (Academic) regarding one possible way to offset feelings of alienation and loneliness among first-year students.

Dr. Allen's concern was that first-year students in large faculties, such as Arts and Science, are thrust among 18,000 unfamiliar faces. Moreover, their course elections are so randomly obtained that the typical first-year student often found himself taking courses where each class was composed of a different group of people. Dr. Allen is well aware, especially in the Science Faculty, that incoming students usually have a well-defined set of courses they must take. His proposal, therefore, was to see if the Committee would sponsor a study whereby the same set of students could be enrolled in specified sections in each of three to five introductory courses.

After discussing Allen's memo, the Committee to Investigate Teaching instructed its Chairman and research staff to investigate the possibility of achieving such an arrangement. This sub-committee was able to ascertain, first of all, that of all the students enrolled in 19 arts courses under a B.A. General Arts Program during the academic year 1971-72, the most populated set of courses elected was English 200, Sociology 202, and Psychology 260. The research staff of the Committee then approached the respective administrative officers of each of these three departments as well as the Dean of the Faculty of Arts in an effort to see if it were feasible for first-year Arts students to be enrolled in all three sections of these three courses at one stop.

The same approach was used in the Faculty of Science for the courses Biology 296, Biology 298, Chemistry 200 and Physics 200.

The Chairman of the Committee to Investigate Teaching and the research staff of the Committee were pleased with the response and cooperativeness they received from every member of the academic community approached in reference to this study. The Committee to Investigate Teaching has been successful in obtaining permission to register Arts students in specified sections of English 210, Psychology 260, and Sociology 202; and in the same manner it has been able to register science students in specified sections of biology, physics and chemistry.

Since the last progress report the Committee to Investigate Teaching has become very aware of the fact that its activities have a bearing upon the actions of other committees. The Committee has taken steps to have formal channels of communication established with these committees and with the various teaching departments in the University. In order to keep the members of the Academic Development Committee of the General Faculties Council apprised of its activities, the Committee to Investigate Teaching regularly sends a copy of the

Annual Report to the secretary of ADC. Dr. Allen's proposed "Same Faces Study" also had direct relevance to alienation and stress among students who attend the University of Alberta. The Committee therefore forwarded a copy of Dr. Allen's letter to Miss Munroe, chairwoman of the ad hoc Committee to Study Student Stress. At Miss Munroe's invitation, a member of C.I.T.'s research staff has been attending the meetings of the ad hoc Committee on Student Stress. The possibility of establishing more formal liaison in the form of having one member from each committee attend the other committee's meetings has been raised.

The Committee to Investigate Teaching has already begun to interact with the Committee on Student Stress through sharing some of the information which C.I.T. has acquired during its existence. Information dealing with the students' philosophy towards education which has been gleaned from the Index of College Activities questionnaire is to be sent to the ad hoc Committee on Student Stress. Furthermore, information which the Office of Institutional Research and Planning had acquired through a study of the commuting student on campus will also be forwarded to this committee.

Finally, in an effort to foster rapport with each teaching department the C.I.T. sent a letter to the chairman of each department requesting that he identify some individual or committee which is actively looking into the instructional activities of the department. The Committee has to date received positive responses from nearly every teaching department in the University.

Proposals and Projects Which the Committee to Investigate Teaching is Currently Considering

It is difficult in an annual report of this nature to provide a valid inventory of those projects which are currently being considered, for the reason that the Committee has many ideas put to it (either from its own members or from the academic community at large) some of which may not be approved and some of which may achieve full project status. The Committee has been able to report on proposals which it has received and which it has approved. The Committee currently has on its agenda three possible undertakings during the 1972-73 year.

1) Members of the Committee have become increasingly concerned as to the Committee's focus. Emphasis in the past seems to have centered on most of the accoutrements of teaching and a basic definition of the attitudinal elements involved in the learning process. But if the Committee were to take its name seriously and investigate teaching, it should strive to investigate ways of identifying pedagogical approaches and provide a mechanism whereby those who teach can have an opportunity to improve the manner in which they teach.

The Committee is fully cognizant that such an approach as this must be done without any suggestion of malice, real or implied, by the Committee or the participants in these activities. It has been thought that one possible approach to this would be to have a series of short term, voluntary, no credit, graduate seminars on teaching led by experienced members of the academic staff for students who are currently enrolled in the graduate studies at the University of Alberta.

2) Another possible approach of providing a means whereby

teachers can seek, without reprisal, to improve their own skills would be through the use of voluntary informal teaching cooperatives. It is felt that instructors in multisectioned courses could improve their teaching methods and hence their overall teaching effectiveness if they were prepared to involve themselves in the three following activities on a mutual basis:

a) occasionally teach in a different section

b) sit in as observers on their colleagues' sections

c) counsel each other on the basis of their observations

3) A third report which has been received informally by the Committee is a suggestion by Dr. Neal that the Committee to Investigate Teaching look into the feasibility of establishing a University-wide Learning Resources Centre. It is the Committee's understanding that Dr. Neal's proposal (which is not yet received) will deal with the topics of: establishing a centre which is open to all members of the academic community and which would contain the latest material for aiding teachers. In addition to the A-V hardware, such as audio-visual aids, computer aided instruction, etc., staff and space would be provided for practical seminars in teaching.

V. CONCLUSION AND RECOMMENDATIONS

The Committee to Investigate Teaching has, over the course of the last 14 months, completed eight of its projects, abandoned two, and is still in the process of working on seven projects.
Based upon the information that has been gathered from studies which were completed and studies which are still in progress, the Committee makes the following recommendations.

Psychology 202

The Committee feels that the individualized instruction approach, despite its lack of apparent success in this University's Introductory Psychology course, still has merit. Many multisectioned introductory courses exist at the University of Alberta in addition to the introductory psychology courses, and the Committee feels that an intensive effort ought to be expended towards increasing the individualized contact between instructor and student while providing the same calibre, or an improved calibre, of education in these courses. The Committee therefore strongly recommends that additional means be employed to have smaller groups of students in each section of large introductory courses.

A recommendation such as this would cost the University more money than it may be willing to spend, but the Committee feels that whatever expenses the University may incur would be more than offset by the educational benefits obtained by the students.

Section registrations in multisectioned introductory courses could be reduced in a number of ways. Some of the alternatives which suggest themselves are: One hour of lecture a week with two hours of laboratory/seminar/discussion; increased use of GTAs in the laboratory/seminar/discussion classes; and the employment of upper classmen as tutors.

A further alternative in the management of large multisectioned introductory courses would be to register students in a manner similar to the Same Faces study. The main characteristic of these "cluster groups" is that every student in a cluster would be enrolled in two or more courses taught at the same time by the same instructors. Every student within a cluster would be provided with a roster of all studentswithin his cluster and every student would be encouraged to work with the members of his group. Moreover, GTAs and fourth-year honor students would be assigned, with assistantships for the former and honoraria for the latter, to provide individualized or small-group instruction to the members of each cluster.

The Library Holdings

The Committee to Investigate Teaching feels that a top flight research library is a vital ingredient to the stature of scholarship at any college or university. The Committee is also cognizant of the Malthusian procreation of contemporary authors and of rising publishing costs, which is all the more reason that the search for an economic means of assessing the quality of a given collection be continued. The Committee also recommends that when such an assessment technique is devised, that it be implemented at the earliest possible moment.

Although the Committee does not feel that assessing library holdings should be the central focus of its purview, it nevertheless feels that some responsible agency in this University should actively continue to pursue the evaluation of the one million titles in the library system. The Committee lauds the work of the Coordinator of Collections Development and the GFC Library Committee, and recommends that more assistance be given to them.

Alternate Teaching Facility

The Committee will be presenting a series of recommendations based on the studies forthcoming on the utilization of 289 - 232 and feels that at the moment it is premature to issue any firm recommendation although the Committee is very favourably inclined to this experiment.

Graduate Teaching Assistant

The study on the GTA in the University which had been part of this report clearly demonstrates that, at the present time, interaction between supervisors and GTAs appears extremely good. While the Committee is pleased with this situation it would still wish to encourage the creation of a University-wide teaching seminar for GTAs and other interested persons in the academic community. The Committee intends, in the near future, to conduct a telephone poll among liaison personnel in the teaching departments to ascertain what the department is doing in this regards for its own GTAs.

EPILOGUE

During the second year of operations the Committee to Investigate Teaching initiated or encouraged a number studies into the very broad spectrum of "teaching." The Committee wishes to thank all those members of the academic community for their cooperation during the last fourteen months and it would like to add that the future of the Committee and its work is such that progressive cooperation on the part of the academic community is an essential factor in the Committee's work to improve the quality of teaching and hence the quality of educational excellence in the University.

APPENDIX I

Frame of Reference of the Committee to Investigate Teaching

Initially, the Committee to Investigate Teaching decided that rigid definition of its function would preclude easy adaptation to the changing needs of the university community. Therefore, its frame of reference was left relatively undefined except for the following guidelines.

The C.I.T. would:

(a) gather and digest information on various aspects of university teaching and learning from both inside and outside the university; to make this readily available to members of the university community through the Committee's library; and to make such recommendations as it sees fit concerning these aspects:

(b) C.I.T. would also examine various aspects of university teaching and learning, focusing especially at the undergraduate level, including (i) teaching loads, (ii) teaching methods, (iii) aspects of the curricula related to teaching effectiveness, (iv) academic counselling of students, (v) the effect the physical and attitudinal environments of the academic community has on learning, and (vi) the increasing impersonality of university teaching:

(c) in reference to (b) above, the Committee will encourage faculty members to undertake independent investigations into the nature of teaching and learning; to encourage

> faculty members to become innovative in their approach to teaching; to initiate original research under its own auspices or in conjunction with other offices and organizations in the university; to publish the findings so that more members of the academic community will become aware of ways to improve teaching.

C.I.T. would not dispense research funds per se to individual faculty members but would provide technical aid, services, and assistance to teachers who wished to develop and test innovations in teaching.

After reviewing proposals submitted to C.I.T., the Committee would formally support and advise investigators who desired such formal sanction as assistance in obtaining research grants or in facilitating administrative procedure.

INDIVIDUALIZED INSTRUCTION: INTRODUCTORY PSYCHOLOGY AT THE UNIVERSITY OF ALBERTA, 1970-1971

C. H. Beck, C. M. Bourassa, O. Gironella, R. C. Hostetter,
A. Manes, and W. Thorngate

SUMMARY. Individualized instruction is a method of teaching large classes with the aid of undergraduate student tutors. The method induces 80% of the students in the course to achieve the remarkable level of 90% correct on term tests and comprehensive final exams. In spite of the greater than normal work load the method is extremely popular with students because of the individualized tutoring and consequent high grades. In the interests of economy the method was modified by reducing the number of student tutors and the number of term tests in 5 introductory psychology sections. This attempt to cut costs and retain the advantages to the student proved futile as the performance of students in the quasi-individualized sections was no different from that of students in the control sections taught by traditional methods. A further study is recommended to test the possibility that the most likely reason for the failure was the omission of the student managers who provide the individualized tutoring.

In the academic year 1970-1971, 5 of the 17 introductory psychology (Psychology 202) course classes were taught by a method approximating "individualized instruction," (Keller, 1968). The method has gained some currency since it has been used successfully with large classes in over 60 institutions and in courses other than psychology, for example physics (Green, 1971). The advantages of the individualized instruction approach are that even with classes in which $\underline{n} > 100$; (1) most students learn material to a mastery criterion of 95% correct rather than the 65% correct normally obtained; (2) as a result 75 to 80 percent of the students get "A" grades; (3) and although students rated the course as having a heavier work load than normal courses the method proved extremely popular because of the individualized tutoring that students received, (Gallup 1969a, b, 1970). The main disadvantage was the increased cost in both material and in teaching assistants over traditional methods. The purpose of conducting the study was to see if the advantages of the method to the students could be retained while cutting costs by reducing the number of tests and the number of tutors.

Since the method used by the University of Alberta, Psychology Department most closely approximates that of Gallup (1969a, b, 1970) the two methods are presented for comparison.

METHOD

The features which distinguish the methods from conventional approaches to large class instruction are as follows:

	Gallup	Alberta
(1)	Each student moves through the course at a speed commensurate with his ability.	Tests offered only at preset times.
	20 instructional units are presented in 13 weeks.	7 instructional units in 14 weeks.
	Student takes test when he is ready for it.	Preset test schedule.
	Student has 4 opportunities to better his score on each unit. The best score on the unit replaces all lower scores in grade computation.	Student has 3 opportunities to make good. The best score replaced lower scores.
(2)	The student proceeds to new material only after demonstrating mastery on initial material.	Student advances through the units in lock step with exam timetable.
	Mastery criterion is 95% correct on a 15 item fill in the blank test per unit.	A grade of zero is given for a score of less than 66% correct on a 30 item multiple choice test.
	Grade based on number of units completed to mastery criterion.	Grade based on mean of best test scores for each unit.
(3)	Lectures, demonstrations and films used to convey progessor's enthusiasm for subject and to demonstrate material. All examined information is conveyed by text so that lecture attendance is voluntary.	Identical.
(4)	Student managers were hired at a ratio of 1 proctor per 12 enrolled students. These assistants manned exam-tutor rooms for 4 hours per week. A student wishing to take a test informed a manager and wrote the test. The manager graded the answers, tutored the student on his understanding of the questions and gave advice on study habits.	Since each instructor had 1 graduate assistant, the instructor to student ratio was 1 to 50. Exams were answered on machine forms. These were collected at the end of the exam period. The instructor then went over the answers before the whole class. Individual counselling was not possible.
(5)	Course grade: 25% lab, 25% comprehensive short answer final, 50% for the units described above.	23% on a project, 30% comprehensive final, 5% experiments, 42% units Described above.
	Grades: A, B, C, D, F.	Grades: 9 through 1.

The Alberta course used the textbook by Sanford, F.H. & Wrightsman, L.S. Psychology: A scientific study of man, Brooks/Cole, 1970. Five of the 17 sections of the Psychology 202 course employed the method described above. These 5 sections are hereinafter referred to as the experimental group. The control group consisted of the 12 sections taught by traditional methods. Thirty items from the "Criteria Test" (McInish and Coffman 1970, p. 115) were administered to all sections at the beginning of the course and as a follow up to some of the sections after the final exam.

RESULTS

Mean precourse and postcourse scores on the Criterion Test were 48% and 52% correct for both the traditional and experimental methods. The test variance was 14% so that the 4% increase in scores was not significant. The mean/S.D. grade point scores for the 5 experimental and 12 control sections were 6.43/1.27 and 5.88/1.51 respectively. The grade distributions for control and experimental groups are compared with those of Gallup (1970) and Ferster (1968) in Figure 1. The difference between experimental and control group distributions is not significant. The mean/S.D. percentage correct best performance on each of the 7 units for all 5 sections together is seen in Figure 2. The cut off line at 66% represents the minimum score possible. The students were told that a score below this line would be reduced to zero. Since such a large proportion of the students failed to reach this criterion the practice actually followed was to ignore the cut off rule and compute mean grades from the best scores for each unit.

The student's best scores on one instructional unit correlated consistantly positively $\underline{r} = +0.40$ to $\underline{r} = +0.65$ with his best performance on other units. All correlations were significant ($\underline{p} < .001$) but since the $\underline{n}$'s were large i.e., $\underline{n} > 100$, the interpretation is equivocal. Correlations between criteria test score and instructional unit best performance were low positive, $\underline{r} = +0.1$ to $\underline{r} = +0.3$ and nonsignificant. The percentage of students in all 5 experimental sections which on each of the 7 units

(1) took only the first test of that unit,
(2) took only one of the two succeeding tests,
(3) took more than one test and experienced an increase in score,
(4) took more than one test and experienced a decrease in score,
(5) took more than one test and experienced no change in score,
is presented in Figure 3.

The distribution of grade changes on unit 3 and unit 4 for all students who took more than one test on these units is given in Figure 4.

DISCUSSION

The failure of the Criterion Test, or grade point scores to indicate differences in performance between the Alberta adaptation of individualized instruction and the traditional approach suggests that the experimental group's modifications in procedure were critical. The distributions of the grade scores do not even remotely approximate those obtained by others, (Figure 1). Nor did the average 66% correct obtained by the experimental group (Figure 2) resemble the 90% correct recorded on individual tests by others (Ferster, 1968, Gallup, 1970, Johnston and Pennypacker, 1971). The option for more than one crack at a unit was not much of an advantage to the student since scores averaged only a 3 item (10%) increase in the number correct on repeated testing (Figure 4). The students' lack of enthusiasm for the repeated testing was evident since by the end of the course only 25% of the students took advantage of the opportunity to improve their grades by taking a second test (Figure 3). Far from enjoying the course, most students found the excessive number of tests extremely aversive especially since extra study on their part did not lead to significantly improved grades. Their poor performance was probably dependent on the following factors. (1) The most significant difference between this course and other courses of individualized instruction (Ferster 1968, Gallup 1970, Johnston and Pennypacker 1971) was the omission of hired student proctors to serve as tutors to the enrolled students. The proctors not only explained answers to individuals but when necessary gave instruction in study habits. In the interests of economy the tutor student ratio was raised from 12 to 1 to 50 to 1. (2) In other courses the study guide accompanying the textbook was much more explicit as to what was to be learned than was the case at Alberta. (3) Since many students found it difficult to earn scores above the announced 66% correct cut off, even with repeated attempts, they became discouraged and gave up serious studying for the quizzes. (4) The quizzes were fewer and covered more material in this study.

RECOMMENDATION

Without an experimental group which demonstrates the main effect it is impossible to specify the relative contributions of the factors. The above study was unwieldy because of the number of sections involved. The experiment should be performed again using two sections as experimental groups and one section as a control group. The two experimental sections should replicate the Alberta method with the following qualifications:

(1) One section should have 1 manager per 50 students and one section should have 1 manager per 12 students.

(2) The study guide given out with the text should be very explicit as to what is to be learned.

(3) Grade point criteria announced at the outset of the course will be based on absolute percentages. The course grades will not be curved.

9	90%-100%
8	80%- 89%
7	70%- 59%
6	60%- 69%

5	50%- 59%
4	40%- 49%
3	30%- 39%
2	20%- 29%
1	0%- 19%

These percentages will be derived as follows: experiment participation 5%, instructional units 65%, comprehensive final 30%.

(4) The control and experimental groups will be taught by the same instructor using the same textbook, study guide and exam questions. The instructor of the control group will have 1 manager per 50 students. The control group will have 3 term exams each made up of the same items used in the experimental groups' unit exams.

The managers may be undergraduates working for money (Gallup 1970) or course credits (Johnston and Pennypacker, 1971).

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Gallup, H.F. Report on Psychology 1 and 2 to the Curriculum Committee, Lafayette College, 1970, February.

Green, B.A. Physics teaching by the Keller plan. *Amer. J. Physics*, 1971, 39, 764-775.

Johnston, J.M. and Pennypacker, H.S. A behavioral approach to college teaching. *Amer. Psychol.*, 1971, 26, 219-244.

Keller, Fred S. "Goodbye, teacher. . ." *J. Applied Behavior Analysis*, 1968, 1, 79-89.

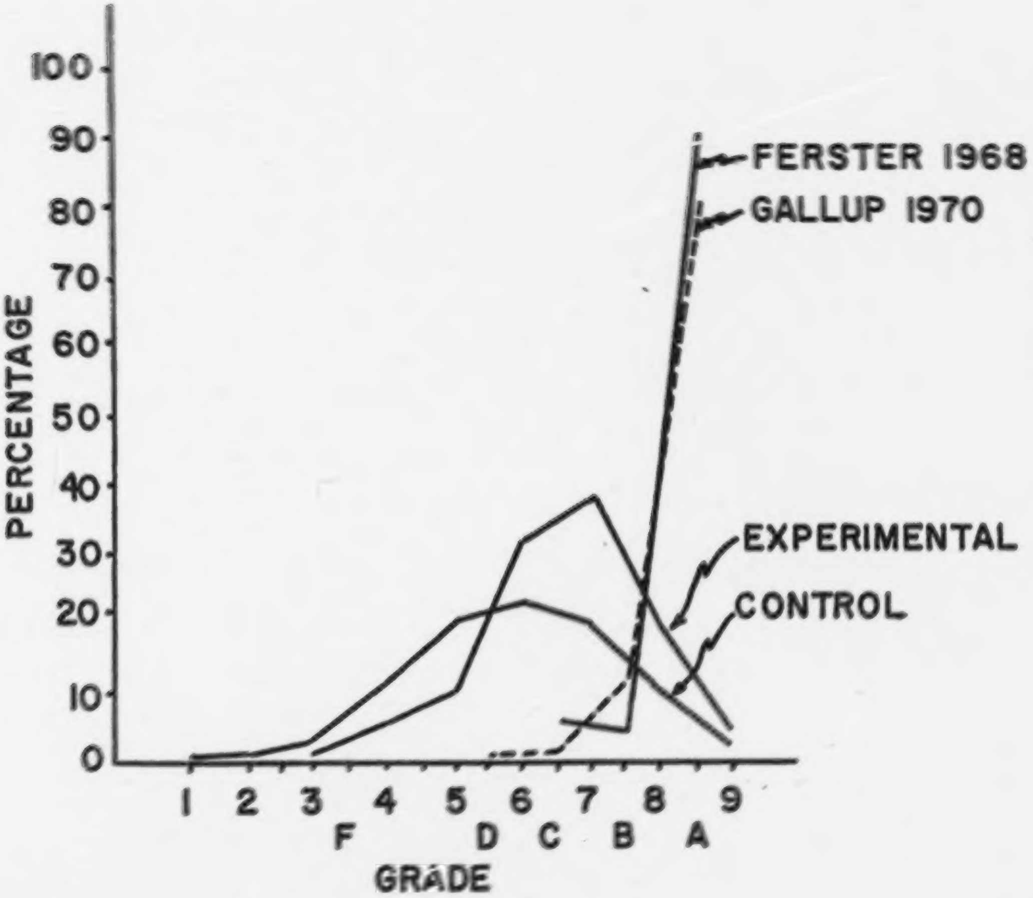
Figure Titles

Figure 1. Introductory psychology course grade distributions taught by traditional methods (control group), taught by the modified individualized instruction method (experimental group) and taught by the individualized instruction method (Ferster 1968 and Gallup 1970).

Figure 2. Percentage correct distributions for all 5 experimental classes grouped together on each of the seven instructional tests. The short bar across the middle of each vertical line is the mean percentage correct on that test. The length of each vertical line represents one standard deviation above and below the mean. The long horizontal line drawn at the 66th percentage mark is the cutoff, which students were informed, constituted the minimum acceptable percentage correct.

Figure 3. To better his grade on any one of the seven instructional units a student had the option of taking any or all of the first or original test and 2 repeat tests. As indicated by the brackets on the left some students took only one test while others took more than one test. Those who took only one test are further divided into the percentage of students who took only the initial test and those who skipped the initial test and wrote only one of the repeat exams. Those who wrote two or more exams on a given unit experienced a rise, a decline or no change in grade between the first exam and the subsequent exam.

Figure 4. The number of students in all 5 experimental classes who experienced an increase or a decrease in the number of items answered correctly between the initial exam and the subsequent 30 item exam for instructional units 3 and 4.



100
90
80
70
60
50
40
30
20
10
0
PERCENTAGE
1
2
3
4
5
6
7
8
9
F
D
C
B
A
GRADE
FERSTER 1968
GALLUP 1970
EXPERIMENTAL
CONTROL

Figure 1

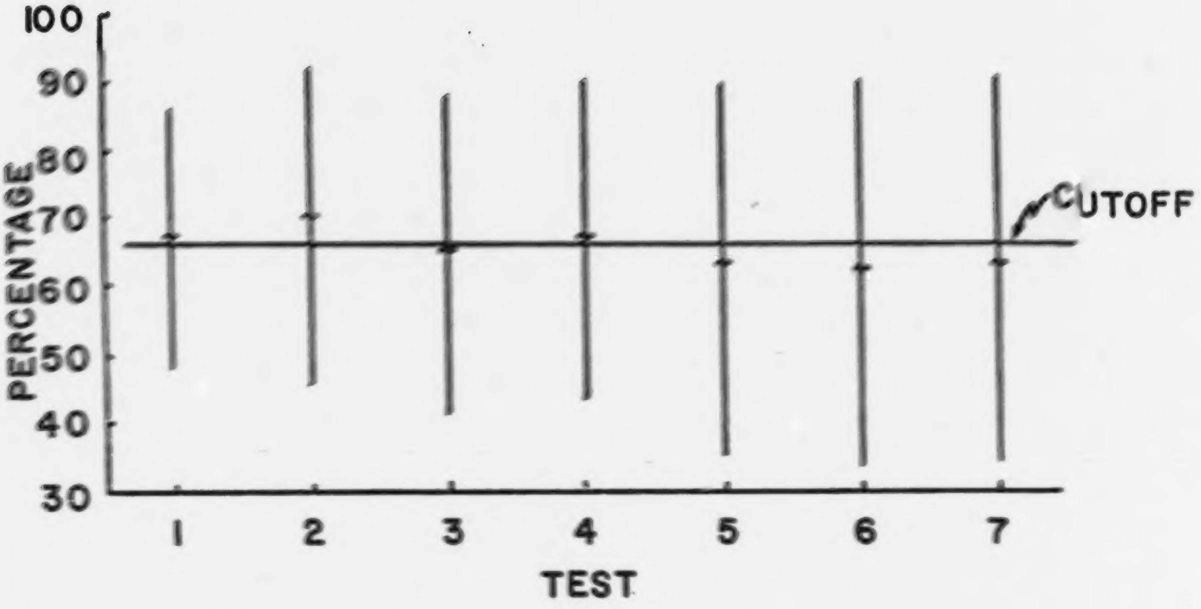


Figure 2

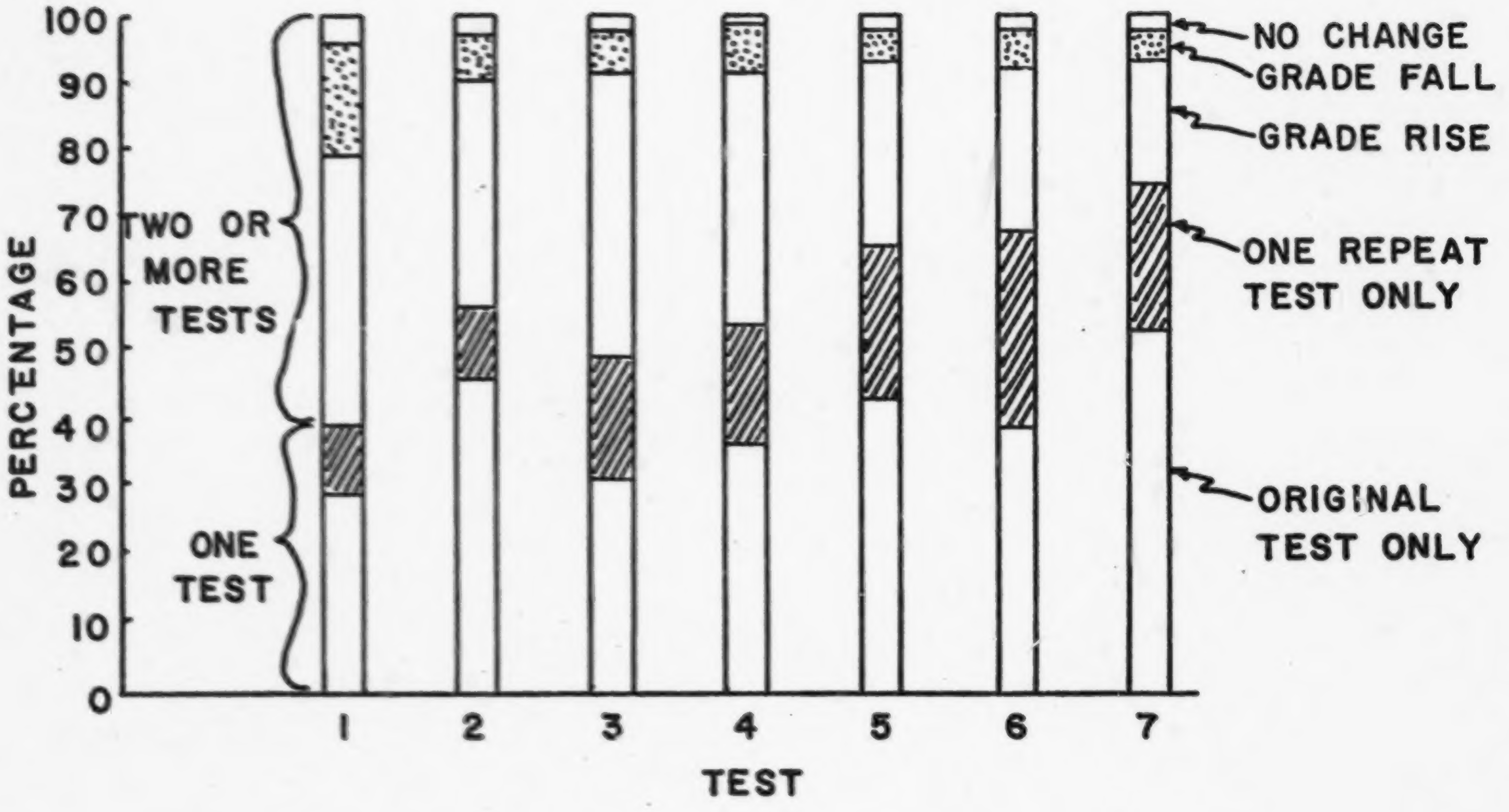

100
90
80
70
60
50
40
30
20
10
0
PERCENTAGE
TWO OR MORE TESTS
ONE TEST
1
2
3
4
5
6
7
TEST
NO CHANGE
GRADE FALL
GRADE RISE
ONE REPEAT TEST ONLY
ORIGINAL TEST ONLY

Figure 3

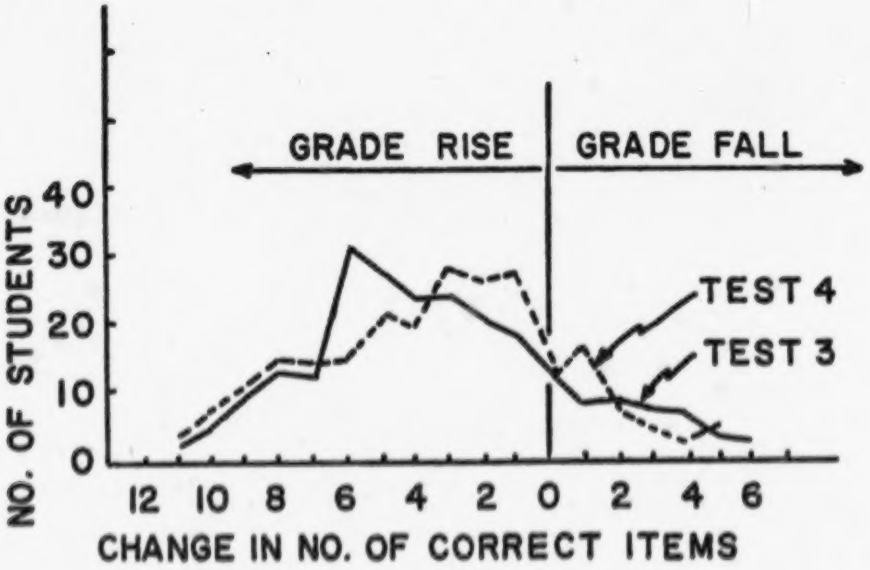

GRADE RISE
GRADE FALL
TEST 4
TEST 3
NO. OF STUDENTS
40
30
20
10
0
12
10
8
6
4
2
0
2
4
6
CHANGE IN NO. OF CORRECT ITEMS

Figure 4

APPENDIX III

LIBRARY QUALITY PILOT STUDY

André Gareau and David Otto

At the request of the Library Administration, the Office of Institutional Research and Planning staff undertook a library quality pilot study. A technique based on the invisible college approach was used (Crane, 1970; Hagstrom, 1965). This procedure basically involved: (a) a citation search to determine the most frequently-cited authors in an area, then (b) a list of the authors most recently-published books, and (c) a check of these books against the library holdings.

Two names submitted by an equal number (two) of faculty members in the Psychology Department were used as points of departure. For each name, the four most recent publications were searched for citations and then each of the citations was in turn searched for its citations. Then a frequency count was made to establish the most frequently cited authors ("stars"): 16 in Area A and 20 in Area B. (See Appendix.)

Of the above 36 authors, 17 had books listed in Books in Print, 1970. For these 17 authors, the most recent book was noted and compared with the library card files. Fourteen out of the seventeen books were, in fact, in the library collection. (Of the three books not held by the library, two were printed in 1970, and one was printed in 1968.)

Several conclusions can be drawn from this pilot study:

1. The results indicate that the library is well supplied with the most recent books of the "stars" of the invisible colleges sampled. It

should be noted that in Area B, few of the "stars" had books listed in Books in Print, 1970. In this and similar cases, book holdings may not be very relevant as measures of library quality; periodical holdings may be the only appropriate measure.

2. This study incidentally provided some information concerning the quality of periodical holdings. During the search of the periodicals cited by the original authors, it was noted that over 90 percent of the periodicals cited were held by the library.

3. It has been noted that this method does not identify the younger, "emerging" authors in an area of study; alternate techniques such as surveys of the member of the invisible college, may be necessary to identify these individuals.

4. The time required for such a study is considerable; it took approximately 12 days (84 hours) to find the four most recent articles for the original authors and to search the citations of these articles to obtain their citations in turn. The work involved in this type of study would be greatly reduced if there were available an up-to-date, cumulative abstract index; at present, one must spend considerable time checking the semiannual abstract indeces. A great deal of work is also involved in the actual search of periodicals for their citations. The periodicals tend to be scattered throughout the library and often volumes are out of the stacks.

Possibly then, some other method of assessing the quality of library holdings should be investigated. Although interesting information was obtained, the method used in this pilot project proved to be very time-consuming and would probably not be feasible on a large scale.

REFERENCES

Crane, D., Social Structure in a Group of Scientists: Test of the "Invisible College" Hypothesis, Baltimore, John Hopkins University Press, 1968, and Susan Crawford, "Communication Centrality and Performance", ASIS Proceedings, 1970, pp. 45-48.

Hagstrom, W. O., The Scientific Community, Basic Books, New York: 1965.

Books in Print, by authors, 1970.

APPENDIX

Study A

Original Name: W. McGuire

Ten Names most cited by McGuire:

M. Deutsch
J. L. Freedman
D. O. Sears
P. Tannenbaum
E. Cooper
D. Papgeorgis
I. L. Janis
C. Osgood
A. A. Lumsdaine
P. Zimbardo

Ten Names most cited by those ten authors whom McGuire cited most often:

C. I. Hovland
(C. Osgood) repeated from list above
L. Festinger
(I. L. Janis)
(P. Tannenbaum)
(A. A. Lumsdaine)
(M. Deutsch)
A. R. Cohen
J. Klapper
F. Heider

McGuire's Citations: Most Recent Book in Print--(*indicates library holding)

1. Cohen, A. R., Attitude Change and Social Influence, 1964*

2. Cooper, E., ____________________ (______ indicates no books in print)

3. Deutsch, M. Disadvantaged Child: Study of the Social Environment and the Learning Process, 1968.*

4. Festinger, L., Conflict, Decision and Dissonance, 1964.*

5. Freedman, J. L., Social Psychology, 1970.*

6. Feider, F., On Perception and Event Structure..., 1959.*

7. Hovland, C. I., and Sherif, M., Social Judgement, Assimilation and Contrast Effects...*

8. Janis, I. L., Personality: Dynamics, Development, and Assessment*

9. Klapper, J., Effects of Mass Communication, 1960.*

10. Lumsdaine, A. A., in Lindsley, D. B., Brain Function, 1968.

11. McGuire, W., ________________

12. Osgood, C., Perspective in Foreign Policy, 1966.*

13 Papageorgis, D., ____________

14. Sears, D. O., with Lane, Robert E., Public Opinion, 1964.*

15. Tannenbaum, P., in Suci, George, R., and Osgood, C. E., Measurement in Meaning, 1957.*

16. Zimbardo, P. ________________

Study B

Original Names: McClearn, G. E.

Most Cited by McClearn:

E. Tobach
R. Mardones
K. H. Kiessling
A. Casey
H. Kalant
L. Erlenmeyer-Kimling
A. Arvola
M. Smith
J. A. Book

Names Most Cited by those Ten Authors Whom McClearn Cited Most Often:

(R. Mardones) repeated from above
J. H. Masserman
E. S. Perman
W. W. Westerfield
R. J. Williams
L. J. Berry
E. Beerstecher
L. A. Greenberg
N. Segovia
A. Hederra
D. Lester

McClearn's Citations: Latest Books in Print--(*indicates library holding)

1. Arvola, A. ____________________

2. Beerstetcher, E. ____________

3. Berry. L. J. ________________

4. Book. J. A. _________________

5. Casey, A. ___________________

6. Erlenmeyer-Kimling, L.________

7. Greenberg, L. A., Studies of Congeners in Alcoholic Beverages, 1970.

8. Hederra, A.___________________

9. Kalant, H., Experimental Approaches to the Study of Drug Dependence, 1969.*

10. Dressling, K. H., ___________

11. Lester, D., Explorations in Exploration: Stimulation Seeking, 1969.*

12. McClearn, W. ________________

13. Mardones, R. ________________.

14. Masserman, J. H., Depression, 1970.

15. Parker, K. D. ________________

16. Perman, E. S. ________________

17. Segovia, N. ________________

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APPENDIX IV

THE ENVIRONMENTAL ASSESSMENT TECHNIQUE (EAT)

Iris Jackson, Andre Gareau, and David Otto, Ph.D.

I. History of the Development of EAT

The Environmental Assessment Technique (EAT) is a relatively new measure developed by Astin and Holland (1961) to describe college environments. The EAT is based on the assumption that the character of a social environment is dependent upon the nature of its members. Thus an important aspect of the student's environment is the personality of his fellow students.

Edward Spranger (1928) set about developing a model of six goal-directed personality patterns as a description of man. His taxonomy comprises six "ideal" types: theoretical, economic, aesthetic, sociable, power seeking and religious. Gordon Allport (1931, 1951) utilized this theory to develop a Study of Values. During this same period of time (the first half of twentieth century) investigators such as Edward Strong, Jr. (1943) began developing empirical predictors of occupation choice.

Holland and others have theorized the personality and career interests are interactive. As Holland puts it:

> "The choice of an occupation is an expressive act which reflects the person's motivation, knowledge, personality, and ability. Occupations represent a way of life, an environment rather than a set of isolated work functions or skills." (Holland, 1958)

Persons are believed to search for environments that permit them to exercise their skills and abilities, to express their attitudes and values, to take on agreeable problems and roles, and to avoid disagreeable ones. Thus, each environment is dominated by the corresponding personality type. In this context the person's choice of a vocation, or the student's choice of a major field, is an expression of his personality.

If this association between personality type and occupational choice exists, for the individuals, then it should also exist for clusters of individuals. In EAT, the student's choice of a major field is thus taken as a miniature "personality test". The personalities employed by Holland are: Realistic, Intellectual, Social, Conventional, Enterprising and Artistic. Descriptions of these six types have been execpted from Holland's The Psychology of Vocational Choice, and appear in Appendix A of this study. To obtain measures of the six orientations described above, the number of majors (students in a major field) of each orientation is expressed as a percentage of the total number of classifiable majors. For example, the realistic orientation of a college environment would be:

$$\text{Realistic Orientation} = \frac{\text{no. of majors classifiable as realistic}}{\text{total number of classifiable majors}} \times 100$$

II. Procedure

The authors proceeded in the following fashion: firstly they obtained the list of subject headings which Dr. Holland used to break his particular colleges and university enrolments into the six personality types. All of the program program specialization areas in the University of Alberta were similarly arranged and classified. The registration statistics of students in each program of specialization classified as "realistic" then became the numerator in the formula above.

Secondly, we obtained a set of Means, Standard Deviations, and T Scores from Dr. Astin for each of the six characteristics, which were derived from Astin's analysis of 1,018 colleges and universities in the United States. The authors then computed the particular T Scores for each "personality" category in the University of Alberta.

Thirdly, the registrars in five other Canadian universities were approached and asked to provide enrolment statistics of their particular institution. These five institutions were McGill University, the University of Toronto, the Univeristy of Saskatoon, the University of Calgary, and the University of British Columbia. It was the intent in this study to compare institutions of higher learning in Canada of comparable size and stature.

Finally, based upon the usable data which three of the universities (University of Toronto, the University of Saskatchewan and the University of British Columbia) were able to provide, similar classifications and computations of T Scores were performed.

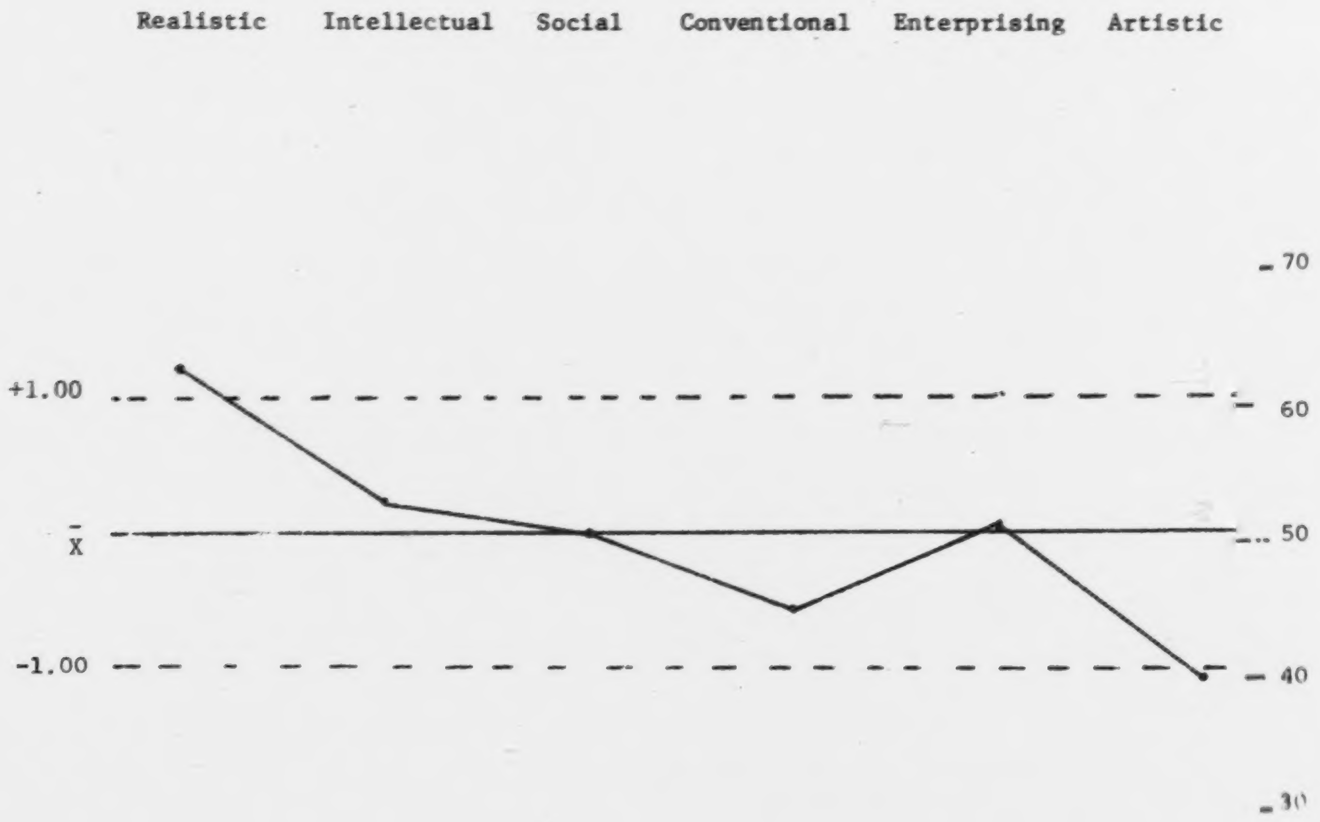
The information so gathered is presented in the following section in a two-part form: The Numerical Distributions are prepared in tabular form and a profile of each institution is presented in a graphic form.

TABLE I

The Mean and Standard Deviation of Percentage Distributions of 1,018 Colleges and Universities in the United States compared with the Percentage Distributions and T-Scores of Four Canadian Universities over Holland's Six Personality / Environment Classifications.

Type	Astin's 1,018 C U's		Four Canadian University Distributions and T-Scores							
	Mean %	S.D. (%)	U. of Alberta		U. of Toronto		Saskatoon Campus U. of Sask.		U. of British Columbia	
			%	T-Score	%	T-Score	%	T-Score	%	T-Score
Realistic	8.6%	12.0%	23	62.00	35	72.00	24	62.83	12	52.83
Intellectual	17.9%	9.2%	20	52.28	17	49.02	16	47.93	33	66.52
Social	36.0%	17.0%	36	50.00	15	37.65	41	52.94	24	42.94
Conventional	8.0%	8.4%	3	44.05	1	41.67	8	50.00	3	44.05
Enterprising	11.8%	8.7%	12	50.23	11	49.08	4	41.03	8	45.63
Aetistic	17.1%	10.1%	6	39.01	21	53.86	7	40.00	20	52.87
TOTAL	99.4%	N/A	100%		100%		100%		100%	

The University of Alberta compared to 1,018 U.S. colleges and universities in Dr. Astin's Environmental Assessment Technique: Expressed in T-scores
(Mean = 50, Standard Deviation = 10)



The University of Alberta

III. A. The University of Alberta Compared to Colleges in the United States

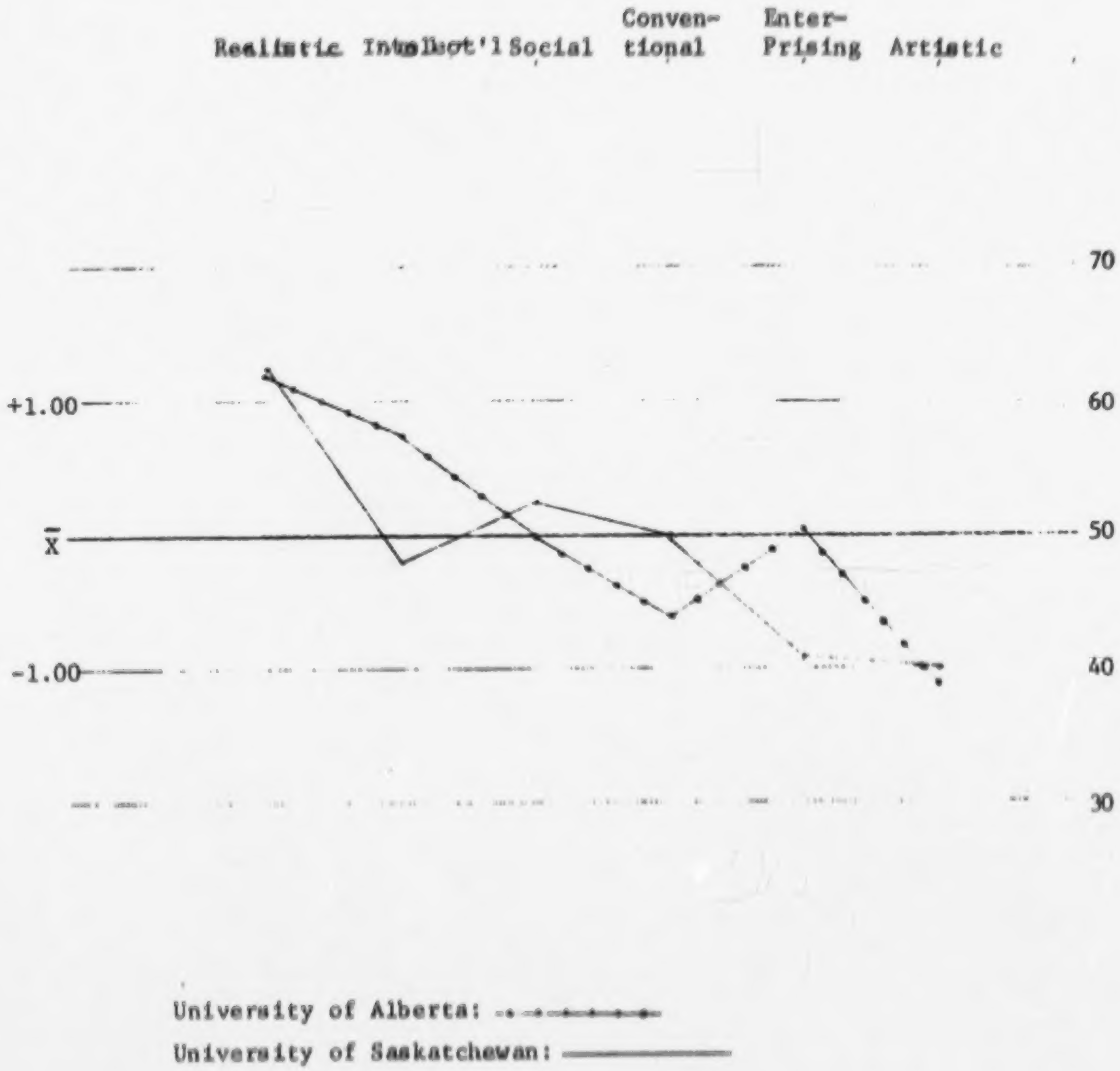
Compared to approximately 40% of the American colleges and universities, the University of Alberta has a curricular offering which attracts more students seeking a career and a "realistic" endeavor, and noticeably fewer students in an artistic occupation.

A T-Score of 62.00 inthe Realistic category indicates that a greater portion of students enrolled at the University of Alberta (80% more than students enrolled in colleges and universities in the United States) have very concrete goals which tend to be in professions containing few conumdrums. The students tend to be masculine in their orientation, emotionally stable, materialistic, and have a no-nonsense approach to life.

The University of Alberta matches the norm of the American colleges and universities in the Socialistic category.

In contrast to the Realistic and Social proportions, this institution has fewer artistically inclined students than the average college or university in the United States.

The University of Saskatchewan (Saskatoon Campus) compared to the University of Alberta on the Environmental Technique.

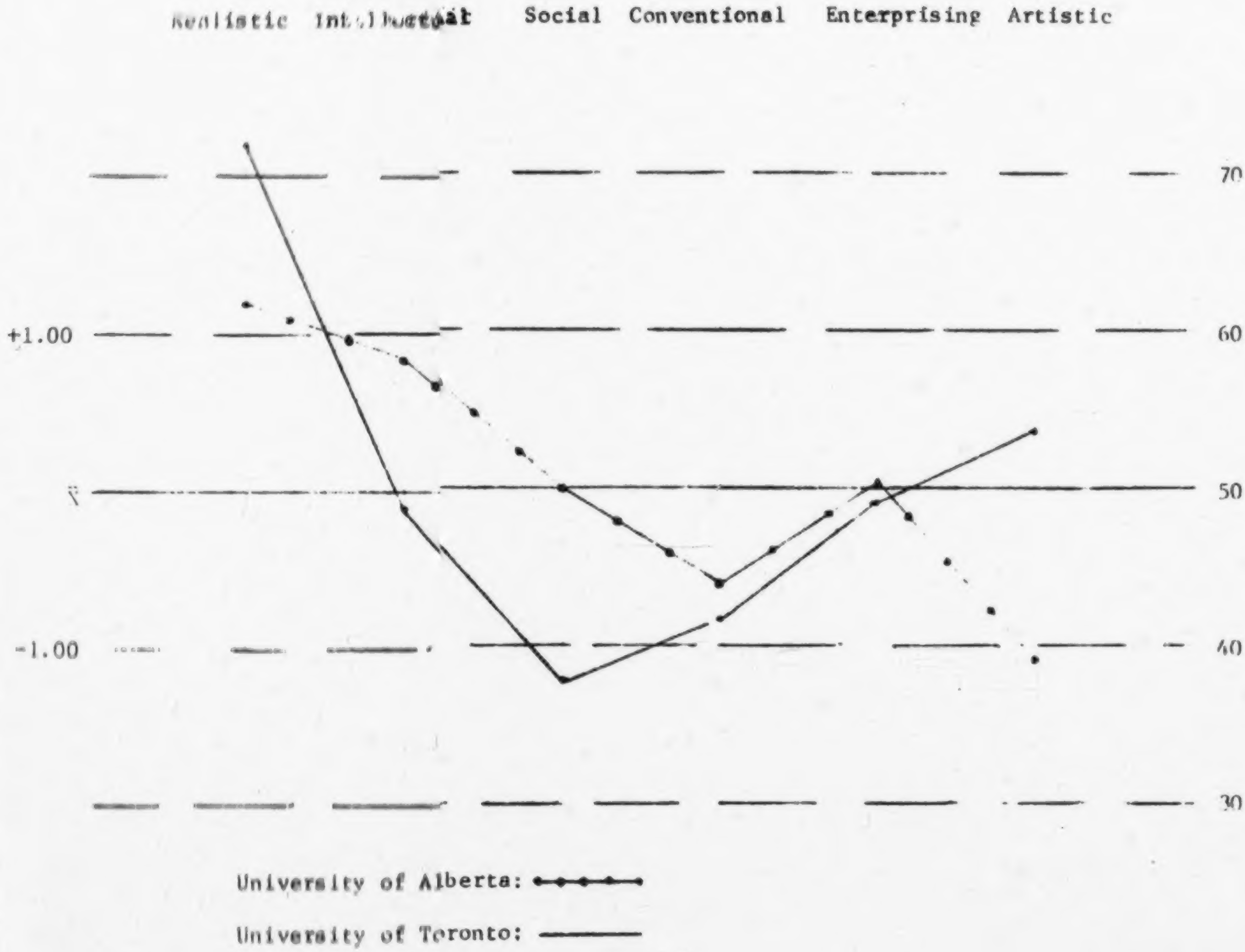


The University of Alberta Compared to the University of Toronto

If the University of Alberta contains more students of a realistic persuasion than the majority of colleges and universities in the United States, then the University of Toronto is even further characterized by students with a realistic point of view. The University of Toronto falls within the top 2% of the American distribution.

Unlike the University of Alberta it has a fairly strong representation of students with an artistic profile. The University of Toronto's lowest area (with a T score of 37.65) is in the social area, which puts it close to the fortieth percentile in the distribution of types among all U.S. colleges recorded in the Astin and Holland (1961) study. The difference in the social factor is probably due to the high enrollment in Education at the University of Alberta, while the difference in the artistic factor may be due to the high enrollment at the University of Toronto in such schools as Architecture and Commercial Art.

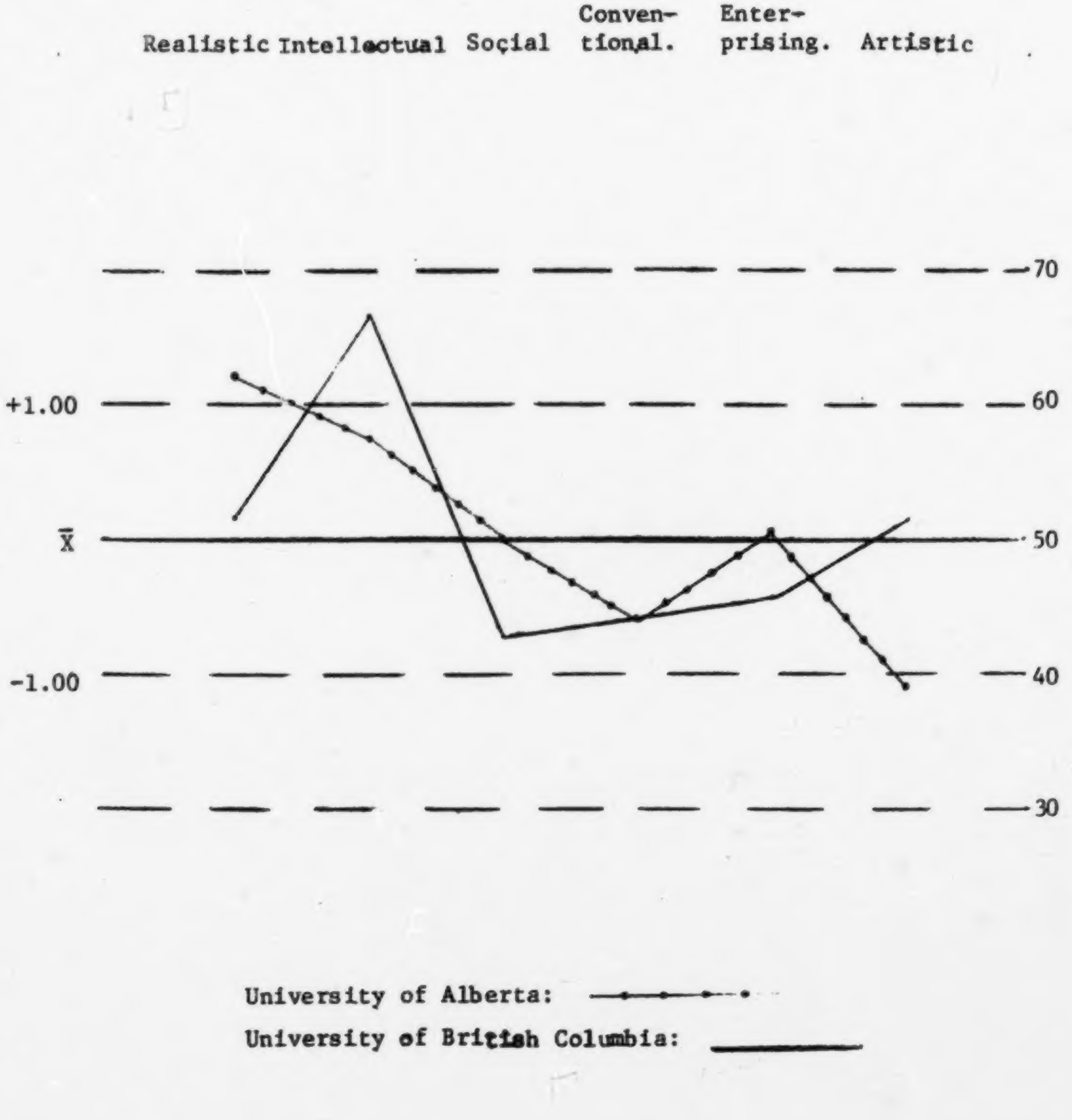
The University of Toronto compared to the
University of Alberta on the Environmental
Technique.



The University of Alberta Compared to the University of Saskatchewan (Saskatoon Campus)

The proportion of types between the University of Alberta and the University of Saskatchewan (Saskatoon) is very, very similar. The Saskatoon campus of the University of Saskatchewan is very high in its materialistic proportion of students and quite low in its artistic proportion of students. The primary differences which occur are that the Saskatoon campus has more conventional oriented people and fewer of the scientific and enterprising people. The Intellectual, Enterprising, and Artistic factors, however, are much lower than the mean. Thus, the majority of students at the University of Saskatchewan express a preference for an altruistic, interpersonal, pragmatic, and concrete education in an applied field over a theoretical, abstract education.

The University of British Columbia compared to The University of Alberta on the Environmental Technique.



The University of British Columbia is classified above the other three Canadian Universities in the Intellectual category, and has more students in this category than 95% of the colleges and universities reported in Astin's study. It appears that the University of British Columbia is characterized by a large number of students enrolled in the professional and scientific schools. In contrast to the University of Alberta, the University of British Columbia has many fewer students enrolled in curricula of a realistic nature or of a social nature and enterprising nature, but exactly the same in terms of the conventional nature, but many more in terms of a scientific and artistic endeavour.

Discussion

The authors acknowledge that there is a difference in culture between that of Canada and that of the United States. Although there is not enough detail available to identify, measure and control these cultural variations the authors feel that cultural differences do not have any extensive effect on the data because many of the career objectives sought by residents of both countries are extremely similar.(i.e. Holland has based his studies on such occupational choices as physician, dentist, pharmacist, art teacher, truck driver, master plumber, etc.) Moreover, many of the courses which are given in the Canadian colleges and universities are very similar to courses offered in the United States.

Nevertheless, many of the differences do exist between Canadian institutions and the norms which have been established in the study of over a thousand colleges and universities in the United States. Three out of four colleges and universities studied have more realistically oriented people enrolled in courses leading to vocations of a pragmatic philosophy. This is especially true of the two prairie universities studied (Alberta and Saskatoon) which are sited in a region noted for its agrarian and extracting industries. Fairly conclusive inferences could be drawn from these data. Firstly, because of the high percentage of realistically oriented students in the University of Alberta, and an average amount of representation from the social, conventional and enterprising students of vocational interest, the type of structure in a course (i.e., the amount of direction and organization in a course syllabus, the manner of teaching, etc.) should be quite highly organized and very straight forward.

Secondly, it was somewhat discouraging to note that this particular institution is slightly above average in reference to students pursuing intellectual activities, which suggests, in contrast to the realistic characterized students, that ideas and concepts of an extreme abstract nature are much less welcomed on this campus than elsewhere.

Although this particular assessment technique was validated by Holland in a late study (Holland 1969) its effectiveness in describing institutions and making enter-institutional comparisons about the character of the institutions seems rather limited. While the instrument itself seems to be quite good, it is too broad. We tend to be using a yard stick to measure molecules.

Conclusion

Four Canadian Universities were classified on six personality profiles used by Astin and Holland to describe the student populations of over one thousand U.S. colleges and universities. When compared to the norms of the U.S. institutions of higher learning, three of the four Canadian universities have a disproportiately higher percentage of students seeking practical careers. This last fact suggests that instruction at the U of A (one of the three) is, and should be, aimed more towards the students' needs to have something which can be immediately applicable rather than something less tangible.

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Appendix A

Excerpts from John L. Holland's The Psychology of Vocational Choice: A Theory of Personality Types and Model Environments. Waltham, Mass. Blaisdell Publishing Company, 1966 (Chapter 2).

The Realistic Model

"The Realistic person copes with his physical and social environment by selecting goals, values, and tasks that entail the objective, concrete valuation and manipulation of things, tools, animals, and machines; and by avoiding goals, values, and tasks that require subjectivity, intellectualism, artistic expression, and social sensitivity and skill. The Realistic type is masculine, unsociable, emotionally stable, materialistic, genuine, concretistic, and oriented to the present.

"The Realistic person differs from the Intellectual person in that the Realistic person is more practical (concerned with facts), emotionally stable, masculine, and conventional (more concerned about success, status, and leadership) than the Intellectual person. The Realistic person is less scholarly (less apt to seek a Ph.D. or daydream about achievement and learning), original, sociable, insightful about interpersonal relations, independent, and self-confident than the Intellectual person. The Realistic person differs from the Social and the Enterprising person primarily in social skills and interests. The Realistic person is more masculine and less original than the Artistic person. The Realistic person differs from the Conventional person primarily in that the Realistic person is less responsible and sociable and more impulsive, stable, masculine, submissive, and self-deprecatory.

The Intellectual Model

"The Intellectual person copes with the social and physical environment through the use of intelligence: he solves problems primarily through the manipulation of ideas, words, and symbols rather than through his physical and social skills.

The Intellectual person is characterized by such adjectives as analytical, rational, independent, radical, abstract, introverted, anal, cognitive, critical, curious, and perceptive.

"...The Intellectual person differs from the Artistic person in that the Artistic person is more feminine, impulsive, irresponsible, and unstable, and makes greater use of his feelings and intuitions as guides to problem solving and creating works of art. The Intellectual person is less sociable and conventional than the Social, Conventional, and Enterprising persons.

The Social Model

"The Social person copes with his environment by selecting goals, values, and tasks in which he can use his skills with an interest in other persons in order to train or change their behavior. The Social person is typified by his social skills and his need for social interaction; his characteristics include sociability, nurturance, social presence, capacity for status, dominance, and psychological-mindedness. He is concerned with the welfare of dependent persons; the poor, uneducated, sick, unstable, young, and aged. In problem solving, he relies on his emotions and feelings rather than on his intellectual resources.

"The Socaal person differs from the Enterprising person in being more feminine, introverted, helpful, intellectual, insightful, co-operative, friendly, responsible, (having religious and social values), and less energetic, aggressive, dominant, sociable, adventurous, cynical, and enthusiastic. The Social person differs from the Conventional person in that the latter is more self-controlled, hard-headed, masculine, and submissive. The Social person is more sociable, dependent, and conventional than the Artistic person.

The Conventional Model

"The Conventional person copes with his physical and social environment by selecting goals, tasks, and values that are sanctioned by custom and society. Accordingly, his approach to problems is stereotyped, practical, correct; it lacks spontaneity and originality. His personal traits are consistent with his orientation. He is well-controlled, neat, sociable, and creates a good impression. He is somewhat inflexible, conservative, and persevering.

"The Conventional person is most closely related to the Enterprising and the Social person. He differs from the Enterprising person in being less sociable, aggressive, dominant, original, enthusiastic (surgent), impulsive, self-confident, and adventurous. He is also more responsible, dependent, and conservative than the Enterprising person. The Conventional person differs from the Social person in that he possesses greater self-control, is more hard-headed, and is less dominant and nurturant.

The Enterprising Model

"The Enterprising person copes with his world by selecting goals, values, and tasks through which he can express his adventurous, dominant, enthusiastic, energetic, and impulsive qualities. The Enterprising person is characterized also by his persuasive, verbal, extroverted, self-accepting, self-confident, oral aggressive, exhibitionistic attributes.

"The Enterprising person differs from the Artistic person in that the latter is more introverted, feminine, self-deprecating, creative, unstable, independent, unconventional, and unsociable.

The Artistic Model

"The Artistic person copes with his physical and social environment by using his feelings, emotions, intuitions, and imagination to create art forms or products. For the Artistic person, problem solving involves expressing his imagination and taste through the conception and execution of his art.

Similarly, he relies principally on his subjective impressions and fantasies for interpretations of and solutions to environmental problems. The Artistic person is characterized further by his complexity of outlook, independence of judgment, introversion, and originality.

APPENDIX V

UNIVERSITY OF ALBERTA

A REPORT TO
THE G.F.C. COMMITTEE TO INVESTIGATE TEACHING ON ROOM 289, CENTRAL ACADEMIC BUILDING

BY

JUDY BRUNT

&

DAVID OTTO, Ph.D.

OFFICE OF INSTITUTIONAL RESEARCH AND PLANNING

FEBRUARY, 1972

The Report on Room 289, Central Academic Building
Fall Term 1971-72 Academic Year

David Otto, Ph. D. & Judy Brunt

Background

In September of 1971 the Experimental Classroom, Room 289, CAB, became operational. At the time, two faculty members were already conducting classes there. A letter was sent to all instructional faculty (see Appendix II) inviting them to view the room with an eye towards using it for their classes.

At the end of the first week in November some 30 people had expressed varying degrees of interest in that room, at least by the count kept in the Office of Institutional Research and Planning. Other interested faculty members may have viewed this room either by contacting Mr. Rolheiser (the building superintendent) or by glancing into the room between classes. Institutional Research and Planning inquiries came from members of six faculties: Agriculture, Arts, Education, Nursing, Physical Education, and Science; and represented 12 of the departments on campus. We were able to schedule 10 instructors into Room 289 to teach 12 courses scheduled for the second term (see Table I, Appendix I).

Room 289 has been booked for short-term use as well. Eight instructors have used that room during the fall term for one or more class periods - just to see how they and/or their students responded to a new set of environmental stimuli. Or, as in the case of one Education faculty's course, to study a new approach to furnishing a classroom. One session was a lecture on Micro teaching using portable VTR (Video Tape Recorder) units.

Two campus organizations (CUSO and Student Help) were able to use the experimental classroom six separate evenings (2 for CUSO, 4 for Student Help) to hold staff training sessions. The student leaders for both organizations reported that training sessions were, in their opinion, more effective in Room 289's informal atmosphere than similar sessions held in the more conventional classroom settings.

Utilization of Room 289

One administrative measure of effective space use is the percentage of time a given classroom is used. Of the nine hours between 8 a.m. and 5 p.m., on each of the five weekdays, Room 289 was utilized some 27½ hours. This figure (27.5) when divided by the total number of hours available, 45, (or 5 days a week, 9 hours each) provided us with one index of utilization. Thus, Room 289 was used some 61% of the available time during the fall term. It should be pointed out that the room, in addition to the one-time users, was also used for an extension course on Thursday evenings, and that in the winter term two additional evening courses will be taught. Current bookings for the winter term indicate a room utilization rate of 88% in the 45 hour week.

Teacher & Student Reaction to Room 289

The Office of Institutional Research & Planning has received some feedback from the students and instructors to Room 289. We had requested that instructors convey both their initial reactions to the room and those of their students after the first few sessions. Here is a synopsis of the responses we have received:

(a) POSITIVE COMMENTS

The most vital feature of this room is that it seems to facilitate interpersonal communications. We feel that this reduction of communication barriers is due to a number of factors (relaxing colorful atmosphere, lack of actual physical barriers between all people in the room). A number of students commented that they were no longer looking at someone's back and felt that they could communicate much better looking at one another. It appears that not just the students, but the professors also found a change. As one English professor stated "... the change in atmosphere in the new room was striking -- the class had already been unusually active in the discussion, but several students who did not formerly participate now became quite active ... an important point is that the elimination of the physical division between instructor and class encourages students to discuss with each other as well as directing remarks to the instructor."

There had been some concern on the part of instructors that the atmosphere would be too relaxing, especially for the early morning users. We found, however, that the students using the classroom in the morning, (8 a.m.) did not find the room too tranquil. No one, in open ended comments about the room, mentioned that it made him drowsy or sleepy. In fact, the twenty-six students taking a 200 level English course at 8 a.m. Mondays, Wednesdays and Fridays responded to two questions on a Questionnaire in the following manner:

"(3) I find this classroom:	
More relaxing	22 responses
Less relaxing	4

(4) I find it:	
easier to concentrate	19
more difficult to concentrate	4
impossible to concentrate	0
about the same in this room	3"

We have interpreted this data to mean that the majority of students in the 8 a.m. class (who, by the way, are not grossly untypical of most students in 200 level English courses) do not consider relaxation and concentration as mutally dependent conditions.

(b) NEGATIVE COMMENTS

The comments that were unfavourable towards the classroom were concerned with the physical duress present in this room. The students objected (some quite strongly) to the lack of comfortable undercushioning beneath the carpeting. They also mentioned the fact that during an hour and a half session one begins to feel very uncomfortable on the boxes, as they too, lack adequate padding. The subject of the pin lights was brought up by a number of students due to the fact that they emit a great deal of heat and when there are a number of students in the room at the same time, the heat can become oppressive.

General Comments

Most of the respondents (both students and instructors) indicated that the room lends itself more to a seminar situation than to a lecture presentation. Quite a few students observed that it is difficult to take notes in this room.

One instructor noted that the physical structure of the room did not aid in a clear definition of the roles of "teacher" and "student". In place of the chairs lined up in rows facing a lectern and blackboard, one is confronted with an elliptical setting without a discernable focal point. This may at first be uncomfortable, but judging from the reports of the users, the effect on both students and teachers seems to wear off in time.

Summary and Conclusions

By the end of the academic year 1971-72, 14 professors from eight departments will have taught 25 courses in Room 289. Initial reactions toward the room are favourable, the main comments dealing with the ease of communication in the relaxing, colourful atmosphere with the lack of barriers between professor and student. The negative comments dealt primarily with the lack of physical comfort -- the boxes not padded enough, the inability to hold large classes and heat generated by the lights. All in all, it appears that both instructors and students are satisfied with the room and would like to use more classrooms furnished in a similar manner.

We would like to point out that the instructors had to adjust to the new setting and we have found that a number of them did not know how to make use of the facilities available in the room. In the future, we hope to have training sessions available for those who would like to use this room.

APPENDIX I

TABLE I

Course Registration in Room 289, Central Academic Building, by term: Academic Year 1971-72, as of Dec. 1971

Department	Full Year Courses		First Term Courses		Second Term Courses	
	Number of Instructors	Number of Courses	Number of Instructors	Number of Courses	Number of Instructors	Number of Courses
English	2	3	2	2	2*	2
Ed. Psych.	0	0	2	2	4++	5
Drama					1	1
Pol. Sci.	1	1			1	1
History	1	1				
Economics	1	1				
Phys. Ed.	1	1				
Psych.	0	0			1	1
	6	7	4	4	9	10

* Same 2 instructors

++ Two new instructors

Number of Different Individuals Instructing, by Dept.

	Instructors
English	4
Ed. Psych.	4
Other Depts. (1 each)	6
	14

INTER-DEPARTMENTAL CORRESPONDENCE

TO All Members of the Teaching Staff. **DATE** September 27, 1971

FROM Dr. Wm. Meloff,
Chairman of the Committee to Investigate Teaching.

RE: Pass/Fail Grading System in Undergraduate Courses

The Executive Committee of the General Faculty Council has authorized the Committee to Investigate Teaching to investigate the pass/fail grading system as an alternative to the present grading system. The Committee to Investigate Teaching has set up certain guidelines for examining this system (see attached).

RE: Room 289, Central Academic Building

The Committee to Investigate Teaching has also been able to have room 289, the Central Academic Building furnished in a distinctly different manner than is usually found in the typical classroom. The Committee's intent is twofold: to present an alternative learning environment to the student and to study the cognative and affective effects of this environment.

The Committee is interested in learning if you would be willing to participate in either of these studies. If you do, or if you wish to obtain more information about either study, please contact the following individuals:

For Pass/Fail	For Room 289
Dr. D. Schaeffer (5259)	Dr. D. Otto (5297)
Dr. D. Otto (5297)	

Wm. Meloff.

Attach.
DO/vcn

APPENDIX VI

ACADEMIC STAFF ATTITUDES
AT THE UNIVERSITY OF ALBERTA
1971

SUBMITTED TO THE
COMMITTEE TO INVESTIGATE TEACHING
BY DAVID OTTO, PH.D.

OFFICE OF INSTITUTIONAL RESEARCH AND PLANNING

APRIL 1972

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I. SUMMARY

One would like to believe that the teacher has a lasting influence on his students; not only in the intellectual realm, but in other areas as well. A good teacher, Jacob (1957) observes, "...couples (a) high respect for students as persons, with a capacity to arouse interest in his subject." (p. 7) When a teacher enjoys such rapport with his students, personal opinions and attitudes of both student and teacher are bound to emerge. This study examined the opinions of a randomly drawn sample of academic staff to ascertain their position on a number of contemporary issues on campus during the 1970-71 academic year.

DRUGS:

The faculty, by and large, would like to see a change in the drug control laws, but in a more conservative direction, and certainly in the opposite direction that the students would seem to want to go.

BIRTH CONTROL DEVICES AND MATERNITY LEAVE:

The faculty responses indicate an endorsement of dispensing birth control devices to students. Written comments on the questionnaire have shown that a fair number of faculty members have not given much thought to their attitude towards granting maternity leave to students. Two out of every three who answered this question were in favour of a maternity leave policy for female students.

PARITY ON THE GENERAL FACULTIES COUNCIL:

The faculty sample felt that student representation on GFC should be increased, but were divided as to whether or not this should be parity.

I. Background

In March of 1971 a questionnaire was sent to a randomly drawn sample of full-time academic staff at the University of Alberta (see Appendix I for details). The sample was composed of representatives of the teaching staff, from lecturer to professor; librarians and members of the academic staff holding administrative posts below the vice-presidential level (i.e., deans, chairmen and directors).

This questionnaire had many objectives. One purpose was an opinion survey of the Honours Program, as requested of the Office of Institutional Research by the Academic Development Committee (see Jackson, 1971, II). A second objective of the questionnaire was to provide information concerning the attitudes of the academic staff about contemporary issues on the University of Alberta campus (the topic of this report). The third purpose of the questionnaire was to supply the first part of a two-part assessment of a description of this campus. (A. Gareau, 1971). Finally, it provided desiderata to be used for a modified replication of Alvin Gouldner's study of faculty types (Gouldner, 1957). Questions dealing with the first two of these four purposes were rather straight-forward and easily identified in the questionnaire. The last two were more abstruse - at least to the respondents. Because no clear connection between 'questions put' and intended use was present, it might be propitious to digress momentarily and explain the source and reason for employing these questions.

Social institutions have 'character,' just as humans do. A high Anglican Church service differs noticeably from a Pentecostal revival meeting, yet both are undertakings of religious institutions in our society. Colleges and universities also have institutional idiosyncracies. Alberta's two newest post-secondary institutions evinced this even before they became fully operational. Athabasca University's statement of educational philosophy is humanistic in nature, yet retains a modicum of elitism in its enrolment policy. Conversely, Grant MacEwan defines higher education as an "open door" egalitarianism, where the traditional liberal arts subjects take a back seat to the more pragmatic fields of learning. Quite understandably, the character of a particular organization in a given social institution results from the collective contributions of its members. It is reasonable to assume that Athabasca and MacEwan have attracted instructors with different sets of educational and interpersonal values.

It must also be assumed that both academic communities differ from the character of the University of Alberta. As a field of study very little is known about the nature and character of individual colleges and universities. Some work has been started in this direction, notably in the United States. (Pace & Stern, 1958; Astin, 1968; Jencks & Riesman, 1968; Riesman, 1956; Ashby & Anderson, 1966; Sanford, 1964; Gouldner, 1957-58 and Wilson, 1964). Two of these studies, (Pace & Stern, and Gouldner) were selected because they were investigative in nature (as opposed to the theoretical writings of Ashby, Riesman and Wilson) and because they examined the attitudinal sets of students and faculty. In the case of the ICA (Index of College Activities) the study was originally concerned with the perceptions of students about the campus atmosphere (see Gareau, 1971). One must realize, of course, that student perception can only account for part of the academic community's perception of la vie académique. So it was decided to carry the study of perception a step further, and, with slight modification, ask comparable questions of BOTH student and faculty.

Fifteen questions, representing the highest factor loadings in Pace and Sterns' study were selected and modified for the faculty questionnaire. (viz: questions were changed from "I often felt that I was competing with other students for high grades" to "Students often feel that they are competing with other students for high grades," - each question having a five-point Likert type scale from 'Strongly Agree' to 'Strongly Disagree.') A questionnaire for students soon will be sent to the students.

Another way to assess the character of the institution is to see how much the faculty man identifies with his place of employment. The faculty man has, in essence, two professional loyalties: to his discipline and to his university. Rarely does anyone divide his loyalties equally. Capitalizing on a Parsonian theory (Parson, 1951), Gouldner (1958) postulated that the 'company man,' i.e., the one loyal to his university, permitted local problems and concerns to dominate his orientation while the 'cosmopolitan' man looked to his international discipline as a source of self actualization. Gouldner carried his research to the point where he was able, using factor analysis, to identify three types of "local" faculty and two types of "cosmopolitans." He stopped there. This writer desires to see if the university faculty can be so identified and what effect each of these two categories has on teaching at the university.*

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* It should be stressed at this point that the individual faculty member's responses have been and will continue to be kept in strictest confidence. The original questionnaires have been destroyed. Other precautions have been taken to insure that no individual respondent can be identified from the reports of the data.

II. Faculty Attitudes Towards Current Issues on Campus

Naturally one other way of assessing the character of the University of Alberta is to ask questions directly relevant to the daily occurances on campus. Issues which occurred in the last year or two, which seemed to polarize opinion between faculty members or between groups of faculty and groups of students were presented to the respondents of the questionnaire. These issues were: 1) the non-academic aspects of students' life (i.e., drug use, the availability of birth control devices, and the possible formulation of maternity leave policy), and 2) student participation in university governance.

A. Student Life

Even within the space of one generation society has moved towards a more permissive attitude of public behaviour. Evidence of this movement abounds in 'x' rated movies, modern literature, and the news media. One senses that there may also be an increased laxity in the *in loco parentis* role. Faculty are no longer expected to assume parental responsibilities. One may wonder just how far the faculty has shifted from its role of stern disciplinarian to that of a detached, unquestioning observer.

One of the latest steps in this movement towards a permissive society centers about the legality of certain drugs. The Le Dain report (1970) provides a rather broad definition of drugs, and its definition posed a problem to this study, for to include all the categories of the Le Dain report (p. 1, et seq.) would substantially lengthen the questionnaire. To select one or two drugs (e.g., marijuana, LSD, etc.) might be too restrictive. Then too, came the problem of the appropriate questions to put to the faculty; should one ask about drug use on campus, or merely the faculty's attitude towards drug use in general? The latter was selected as an area of study, and all drugs (with the exceptions of caffeine, nicotine and alcohol) were divided into two general classes: habit-forming and hallucinogenic. While all 'drugs' could be habit-forming, not all are hallucinogenic. So the first class of habit-forming drugs generally includes barbituates, tranquilizers, amphetamines, and cannabis, while the second is limited to LSD and opiates. These drugs, and their use, are governed by certain laws (Narcotic Control Act, Food and Drugs Act and the Alberta Public Health Act), and part of the Le Dain Commission's report dealt with the possible changes in these regulations.

The two general categories of drugs were subsequently divided into two further questions: should the laws be changed?, and in what manner?

TABLE I

FACULTY RESPONSES TO TWO PAIRS OF QUESTIONS:

Should the Laws on the Non-Medical Use of Habit-forming (Hallucinatory) Drugs be Changed? And Should the Laws be Liberalized?

	Habit Forming Drugs				Hallucinatory Drugs			
	Changed		Liberalized		Changed		Liberalized	
	N	%	N	%	N	%	N	%
Yes	45	70	28	37	35	60	32	46
No	19	30	47	63	23	40	38	54
TOTAL	64	100	75	100	58	100	70	100

While Faculty opinion coincides with student opinion in that both groups feel that the laws governing the non-medical use of drugs should be changed, opinion differs on the direction of change. Seventy percent of the sixty-three respondents favoured changing laws governing habit-forming drugs, and 60% of the 58 respondents favoured changing the laws governing hallucinatory drugs. In both instances the majority of the respondents preferred _not_ to have these laws liberalized. Student opinion, as reported by the _Gateway_, however, favours liberalization of the laws governing drug possession and use. (_Gateway_, February 5, 1970 and _Gateway_, October 30, 1970.)

Faculty opinion represents the 'older' generation in that a more conservative attitude towards the use of drugs, and stronger punitive legislation predominate.*

B. Birth Control and Maternity Leave

One wonders if the same variety of conservation in faculty attitude extends to the moral behaviour of the students. Birth control devices are not prohibited by law, so one need not worry about legislation. Severe proscriptions do exist, however, in the form of social mores and religious mandates.

The data from the questionnaire suggests that the faculty endorses the distribution of contraceptive devices through professionally staffed, formalized channels (i.e., the Student Health Service).

Dispensing the 'Pill' is a _fait accompli_ on this campus. The practice of granting maternity leave to students is not. Because this particular issue has not been widely discussed on campus in the public media, individual faculty members have not firmly committed themselves to a decision even though the response was two to one in favour of maternity leave.

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* It is surprising to observe, however, that the age of the faculty respondent _does not_ correlate significantly with any but one of the responses in Table I. But, then, only six of the respondents were 30 years old or younger. (See Tables III through VI, Appendix I for details).

TABLE II

FACULTY RESPONSES TO TWO QUESTIONS:

"Should the Student Health Services be Permitted to Dispense Birth Control Devices? and "Should Women Students be Allowed Maternity Leave of Absence Absolving Them of Academic Responsibilities During This Time?"

	Birth Control Devices		Maternity Leave	
	N	%	N	%
Yes	81	91	51	67
No	7	9	25	33
TOTAL	88	100	75	100

C. Student Participation in University Governance

Less than a month before this questionnaire had been sent to the faculty respondents the General Faculties Council met to decide if it would re-align its membership. After the filing of the Committee report, a minority report, briefs by members of the faculty and student body, and lengthy debate, the Council voted in favour of student parity. Two questions appeared in the Faculty Questionnaire concerning this issue. The questions and their responses are given in the following table.

TABLE III

"Students Should have Quantitative Parity on the General Faculty Council" and "Students Should have Qualitative Parity on the General Faculty Council (e.g., voting privileges)."

	Quantitative			Qualitative		
	N	%		N	%	
Strongly Agree	5	5	19%	15	15	44%
Agree	14	14		29	29	
Neither	23	23		19	19	
Disagree	34	34	59%	22	22	37%
Strongly Disagree	25	25		15	15	
TOTAL	101			100		

The first question deals with the concept of having an equal number of representatives from the student body as from the faculty body, but without an equal number of votes. The latter question suggests equal voting privileges. The faculty in this sample, as a whole, rejected the idea of cluttering the Council chambers with bodies possessing a voice but no vote. Yet there was only a very slight majority of faculty respondents who were willing to embrace the measures which GFC had finally enacted.

This does not seem entirely unreasonable. This type of shared authority on campus, of student parity on a major academic decision-making body, can be a threatening thought. Moreover, it is an avant-garde move, one which few other colleges and universities in North America have even begun to contemplate. Small wonder then about this display of caution.

One should note, however, that this survey was taken after the GFC decision but BEFORE the newly constituted Council had had an opportunity to function. It would be safe to predict that faculty attitude concerning student parity will change during the course of the upcoming academic year. In which direction (i.e., more favourable or less favourable) will depend in part on the quality of GFC's decisions.

N

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APPENDIX I

Chi-square of those in the Sample

to Total Faculty (Actual count 1970-71, as of Dec. 1970)

ON CAMPUS ONLY

	Respondents	Faculty*	Total
Agriculture	7	59	66
Arts	28	329	357
Bus. Admin. & Comm.	3	37	40
Dentistry and Dental Hygiene	5	33	38
Education	12	138	150
Engineering	8	84	92
Household Economics	2	20	22
Library Science	1	8	9
Law	1	19	20
Medicine	7	121	128
Nursing	2	21	23
Pharmacy	2	15	17
Physical Education	4	34	38
Rehabilitation Med.	1	14	15
Science	20	246	266
TOTAL	103	1,178	1281

$x^2 = .6416$
df = 14
$P > .99$

* Source: Number of Faculty and Staff in Faculties and Schools - University of Alberta Universities Commission Form UC-O-21, 1970-71 Actual, as prepared by the Office of Vice-President (Academic), University of Alberta

The Equivalence of Full Time Staff rounded to nearest whole number.

APPENDIX I

TABLE II

Crosstabulation of the Year of Birth with the Answer to the Question about Maternity Leave for Students

MATERNITY LEAVE?

Year Born	Yes	No	Undecided	Total
1946	1			1
1945			1	1
1944	1	1		2
1943	1			1
1942	3		1	4
1941	1			1
1940	3		1	4
1939	1	3	1	5
1938	5	1	4	10
1937	3	1	1	5
1936		1		1
1935	6	2		8
1934	2	3		5
1933	1	1	2	4
1932	1	1		2
1931	1	2		3
1930	3		1	4
1929			1	1
1928	2	1		3
1927			2	2
1926	1	2	1	4
1925	4		1	5
1924	1	2		3
1923	2	1		3
1922	1			1
1921	1		1	2
1920		1		1
1918			2	2
1916	1			1
1914	1	2	1	4
1912	2			2
1907	2		1	3
	51	25	22	98

Product moment correlation coefficient: -.03

TABLE III

Year of Birth Crosstabulated With Change in Laws Governing Habit Forming Drugs

Year Born	Yes	No	Total
1946	1		1
1945	1		1
1943	1		1
1942	2		2
1941	1		1
1940	3	1	4
1939	2	3	5
1938	4	2	6
1937	2	3	5
1936	1		1
1935	3	2	5
1934	3	1	4
1933		2	2
1932	2	1	3
1931	1		1
1930	2	1	3
1929	1		1
1928	2	1	3
1927	1		1
1926	2	1	3
1925	2		2
1924	2		2
1923	3		3
1921	1		1
1920		1	1
1914	1		1
1912	1		1
	45	19	64

Biserial Correlation Coefficient: -0.15
Yes = 1, No = 0.

TABLE IV

Year . . .
With Liberalization of the Laws Governing Habit Forming Drugs

Year Born	Yes	No	Total
1946	1		1
1945	1		1
1944		1	1
1943	1		1
1942		2	2
1941	1		1
1940	1	3	4
1939	2	3	5
1938	3	5	8
1937	1	4	5
1936	1	1	2
1935	4	2	6
1934	1	2	3
1933		4	4
1932	1	2	3
1931	1	1	2
1930		2	2
1929		1	1
1928		3	3
1927	1	1	2
1926	1	2	3
1925	2		2
1924		1	1
1923	1	2	3
1921	2		2
1920		1	1
1918	1	1	2
1914		1	1
1913		1	1
1912	1		1
1907		1	1
	28	47	75

Biserial Correlation Coefficient: 0.06

TABLE V

Year . . .
With Change in Laws Governing
the Non-Medical Use of Hallucinatory Drugs

Year Born	Yes	No	Total
1946	1		1
1945	1		1
1942	2		2
1940	2	1	3
1939	2	3	5
1938	3	2	5
1937	2	3	5
1936	1		1
1935	4	2	6
1934	1	2	3
1933		2	2
1932	2	1	3
1931	1		1
1930	1	1	2
1929	1		1
1928	2	1	3
1927	1		1
1926		2	2
1925	1	1	2
1924	1		1
1923	2	1	3
1921	2		2
1920		1	1
1914	1		1
1912	1		1
	35	23	58

Biserial Correlation Coefficient: -0.055

TABLE VI

Year . . . With Liberalization of Laws Governing the Non-Medical Use of Hallucinatory Drugs

Year Born	Yes	No	Total
1946	1		1
1945	1		1
1944		1	1
1942	1	1	2
1940	1	2	3
1939	2	3	5
1938	1	4	5
1937	2	3	5
1936		1	1
1935	4	1	5
1934		2	2
1933		4	4
1932	1	2	3
1931	1	1	2
1930	1	1	2
1929		1	1
1928	1	2	3
1927	1		1
1926		2	2
1925	1	1	2
1924		1	1
1923	1	2	3
1921	1	1	2
1914		1	1
1912	1		1
1907		1	1
	22	38	70

Biserial Correlation Coefficient: 0.255
Significant at the .05 level.

THE HONORS PROGRAM STUDY--PHASE II
STUDENTS AND FACULTY OPINION

Submitted to
The Academic Development Committee

By
Miss Iris Jackson
The Office of Institutional Research and Planning

Edmonton, Alberta
June, 1971

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ABSTRACT

Questionnaires were sent to all Honors enrollees, all Honors alumni, all Honors withdrawals, a sample of General Program students, and a sample of faculty regarding their opinion of the Honors Program. The questionnaires were designed to determine the degree of agreement with facets of the Honors Program. It was found that:

1. A substantial majority of alumni, staff, and students that responded to the questionnaire felt that the Honors program should NOT be eliminated.

2. Students in the Honors program, General Program students, and students that withdrew from the program basically had a common attitude towards many aspects of the Honors program. Few significant differences were observed.

3. Professors in the Faculty of Arts differed from their collegues in the Faculty of Science in their perception of the Honors Program. Professors in the Faculty of Science favored a closer supervision of course selection of Honors students while professors in Arts did not. Moreover, Science professors saw their Honors students as being more visible (i.e., identifiable) in the classroom than did Arts professors.

4. The academic staff surveyed felt a clear distinction exists between the Honors program and the Four-Year Special Degree Program.

THE HONORS PROGRAM STUDY--PHASE II

STUDENTS AND FACULTY OPINION

Introduction:

The Academic Development Committee requested the Office of Institutional Research and Planning to investigate the Honors Program at the University of Alberta. The Office of Institutional Research and Planning's researchers examined the nature of the Honors Program as it presently exists, its origin, and its future in relation to the four-year Special Degree program now in operation or about to be initiated.

In exploring the Honors program, the Office of Institutional Research and Planning's researchers sought to learn something about: (a) the characteristics and attitudes of Honors students; (b) the attitudes of Honors alumni; (c) the views of those who withdraw from the Honors program; (d) the opinions of the General Program students; and (e) the attitudes and intentions of department administrations that structure the program.

This report deals with the opinions expressed by students and faculty respondents to the questionnaires.

Methodology:

Questionnaires were sent to all Honors enrollees, all Honors alumni, all Honors withdrawals, a sample of General Program students, and a sample of faculty. (See Appendices A, B, C, D and E for the questionnaires used.

The questions were designed to determine the degree of agreement with a number of statements about the Honors Program and about the student enrolled in it. Analysis included a frequency count of responses in five categories from "strongly agree" through to "strongly disagree", the determination of the mean, variance, standard deviation, the correlation coefficient, chi-square analysis, and one way analysis of variance, as well as a Scheffe multiple comparison of means, and a Newman-Keuls comparision between ordered means.

Observations:

The Honors enrollees, Honors withdrawals, General Program students, Alumni, and Faculty are basically in agreement on many questions. However, there are a few questions that show interesting differences.

Student Visibility

The first is the question of the visibility of Honors students in the classroom. That is, do the other students, and the professor know which students are in the Honors program? All groups of students tend to disagree and believe that the Honors students are not distinguishable from other students in the classroom. Faculty, on the other hand, generally agree that Honors students are highly visible. ($X^2 = 64.65$, df = 4, $p < .001$.) There is a significant difference between Arts and Science faculty respondents. Arts faculty tend to state that Honors students are not highly visible, while Science faculty tend to state that they are. ($X^2 = 64.63$, df = 4, $p < .0000$.) Generally, faculty do not make a point of finding out who in their classes are Honors students. Significantly more Arts Faculty make note of who their Honors students are than Science Faculty ($X^2 = 22.197$, df = 4, $p < .002$.) Perhaps Arts Faculty notice Honors students in their classes because the students are not discriminable by scholastic standings. This is perhaps corroborated by the small, insignificant tendency of Arts Faculty to disagree, and Science Faculty to agree with the idea that a clear scholastic distinction exists between Honors and General Program students Science faculty members have a tendency to regard Honors students as academically superior, while Arts faculty members do not. The students do not offer any clear pattern of response to this question.

Discussion of Visibility Variable

The question of why Science Honors students are known by the Science faculty while Arts Honors students tend to remain unknown has a number of possible explanations, many of which are refuted by the discussions held with department representatives (reviewed in the first report). If the number of Honors students per department in the Faculty of Science was significantly less than the corresponding ratio in the Faculty of Arts, it could be assumed that more Science professors would find the task of remembering the Honors students in their department easier than it would be for Arts professors. But, there are significantly more Science Honors students per department (average 61) than there are Arts Honors students per department (average 16), so this explanation must be discarded. Perhaps Science Honors students are more aggressive in pursuing their field of interest and this characteristic results in more staff-student contact then that of the presumably more independent Arts student. At present, there is no way of testing this rather ipsative construct. Science Honors students do generally have more class and laboratory hours than Arts Honors students so that staff-student contact might be greater in Science than in the Arts Faculty. The laboratory itself is more conducive to a dyadic staff-student contact. However, laboratory classes usually are handled by GTA's. There may be more hierarchical than peer group interaction in the Sciences so that the Honors students gain intellectual stimulation from their professors rather than from their classmates. This is corroborated to some extent with the finding that Science students tend to agree that their undergraduate status interfered with forming friendships with General Program students. Arts students do not seem to have this problem. Another possible explanation for the higher visibility of Honors Science students is that Science might set up more segregated classes exclusively for Honors students than does Arts. This was not found to be the case since a small number of departments in either faculty offers the Honors student exclusive classes. One explanation that seems consistent with all findings is that Science faculty members tend to regard their Honors students as intellectually superior to General Program students. Arts faculty members do not agree, perhaps because there is not a large difference in academic achievement between Arts Honors students and Arts General Program students.

In conclusion, we know that more Science Faculty professors say they can identify the Honors student than do Arts Faculty professors, but the reason (s) why remain an enigma.

Differential Treatment

All the Students in the study were asked if they felt that Honors students were generally treated differently than General Program students. There was a significant difference among student respondents from different faculties. Science students tend to disagree with the idea, while Arts students tend to agree. The General Program students tend to think that Honors students are NOT treated any differently while students who withdraw from the Honors Program give an evenly divided opinion. Honors students tend to think that they are more favourably treated because they are better known than other students. However, some Honors students commented that, because they are better known, more was expected of them.

Most faculty respondents did not express an opinion on which type of student was more challenging to teach. There was a tendency to disagree with the view that Honors students are more challenging. Perhaps teaching, per se, is the challenge. In other words, some faculty may reason that General Program students are less knowledgeable about the material and, consequently, the instructor must give more attention to his presentation. On the other hand, some faculty may feel that the Honors student, being more familiar with the material and presumably better motivated and/or more intelligent than the General Program student, will raise provocative questions which in turn will lead to more stimulating discussions. In general, members of the academic staff indicated that they would like to become more involved with the Honors students. Science faculty members agreed to this statement significantly more often than did Arts faculty. ($X^2 = 22.20$; df = 4; $p < .0002$.

Supervision

Another difference in opinion occurs when students and faculty are asked if they agree that Honors students should be closely supervised when choosing courses. All Science students tend to agree to close supervision, while all Arts students tend to disagree. (Honors enrollees: $X^2 = 13.99$;

df = 4; $p < .01$; General Program students: $X^2 = 23.72$; df = 12; $p < .05$; Withdrawals: $X^2 = 12.30$; df = 4; $p < .05$) Both Arts and Science faculties were neutral with regard to supervision of course selection for Honors student, although there is a slight tendancy for the Science faculty to agree that the students should be closely supervised. This may be due to the concept of incremental learning in the Sciences which may be more prevelant than in the Arts.

Social Awareness

Honors students tend to think of themselves as being more aware than other students are of the administration of their department and the university. However, other students disagree and faculty simply could not assess how aware their students are of the administration.

Most (87 percent) of the currently enrolled Honors students who responded to the questionnaire disagreed that being an Honors student interfered with forming friendships with General Program students. However, more Science students agreed that beeing an Honors student does interfere with making friends than Arts students.

Financial and Job Problems

When asked if they would like to give fourth year Honors students some form of financial inducement to remain as undergraduates, 66 percent of the responding faculty agreed. Fourth-year Honors students often find themselves with severe financial problems, and as some departments offer qualifying students some financial assistance, it is more practical from an economical point of view to apply to graduate school than to finish the four-year degree. However, 50 percent of the faculty respondents agreed that Honors students have better job opportunities than General Program students. A large portion of faculty (40 percent) do not know if this is so. Students, however, realize that, in this period of high unemployment, jobs are very scarce for graduates from any program.

Selection for Graduate School

Fifty-six percent of the faculty respondents agreed or strongly agreed that the Honors Program provides a good device for selection of graduate students, because a student that has done well in an undergraduate Honors Program will likely do well in a graduate course. However, one half of the Engineering Faculty respondents (N = 4) disagreed. Perhaps this professional school staff regards practical experience as a more important predictor of graduate success in an applied field.

Worth of the Honors Program

All groups agreed that the Honors Program is worthwhile and of value. It is significant to note that even those who withdrew from the Honors Program felt that it should be maintained. A majority of all individuals surveyed disagreed that it should be eliminated. Seventy-nine percent of the currently enrolled Honors students who responded, fifty percent of the General Program students, sixty-six percent of those students who had withdrawn from the Honors Program, and seventy percent of the faculty respondents agree that it should be retained. It should be noted that Honors students and Alumni agree most strongly with the retention of the program, General Program students, and withdrawals agree the next most strongly, and faculty members have the greatest variance in responses, although they still generally agree that the program is worthwhile.

Most faculty respondents agree or strongly agree that the Honors Program should be maintained since it provides a challenge to brighter students. There are two factors acting in this question: one is that it should be maintained and the second is that it provides a challenge for brighter students. This may be why this question so clearly and accurately discriminates in favour of retaining the program. There is no clear student response pattern to this question.

Sixty percent of the faculty respondents tended to disagree that the Honors Program serves the same purpose as the Four-year Special Degree program. It should be noted that the Science faculty respondents, that have had greater experience with the Special program than the Arts faculty, more strongly regard it as being different than the Honors program. In the departments where the Special program is about to be initiated, the Honors program generally has been revised to make it more academically demanding than the four-year Special Degree program.

Staff Seniority

It should be noted that both the number of years a faculty member has been on campus, and the rank that the faculty member holds are insignificant variables in the determination of opinions about the Honors program and its students.

CONCLUSIONS AND RECOMMENDATIONS

This study revealed that:

1. A substantial majority of alumni, staff and students that responded to the questionnaire feel that the Honors program should not be eliminated.

2. Students in the Honors program, General Program students, and students that withdrew from the Honors program basically have a common attitude concerning various facets of the Honors program. Few significant differences have been observed.

3. The perception of the Honors program differs to some extent between professors in the faculties of Art and Science. Professors in the Faculty of Science lean more to close supervision of course selection than do professors in Arts. Also, Science professors see their Honors students as more visible in the classroom than do Arts professors. The latter group has trouble identifying students in their classes.

4. The Academic staff surveyed felt that a clear academic distinction exists between the Honors program and the four-year Special Degree program.

It appears that there will be little or no redundancy in having two four-year programs in Arts and Science as most faculty and students have a clear, though not verbally defined, idea of the differences between the four-year Special Degree program and the Honors degree. Generally, students choose the Honors degree for its challenge and as a means of specialization. However, there is a tendency to avoid the "Honors" label when it is regarded as intellectual snobbery. Students like to view the education system as democratic, and one in which all students could achieve equal academic standing if they so choose. Yet they acknowledge that the four-year degree will serve the student who wishes to specialize, but not commit himself to the extra academic effort required by the more rigorous Honors program.

APPENDIX A

HONORS CURRENTLY ENROLLED QUESTIONNAIRE

HONORS STUDENT QUESTIONNAIRE

1. Name ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
Surname

☐☐☐☐☐☐☐☐☐☐ First ☐ Middle Initial

6
2. ☐☐☐☐☐☐ Identification No.

3. Faculty: ☐ Arts ☐ Science ☐ Other

4. Program Specialization (e.g.,Economics, Physics) ________________ ☐☐

①

Please answer the following questions by checking the appropriate box. S = strongly agree, s = agree, n = undecided or neutral, d = disagree and D = strongly disagree.

	S	s	n	d	D	
5. I feel that the Honors program serves a purpose that cannot be filled by any other program	☐	☐	☐	☐	☐	16
6. I believe that Honors students should be closely supervised in their course selection	☐	☐	☐	☐	☐	
7. I find that Honors students are highly visible in the classroom (that is, other students know which of their classmates are Honors students)	☐	☐	☐	☐	☐	
8. I think that the Honors program should be eliminated	☐	☐	☐	☐	☐	
9. It has been my experience that professors treat Honors students differently from general program students	☐	☐	☐	☐	☐	

9a. Check one: They are treated: More Favorably ☐
Less Favorably ☐

	S	s	n	d	D	
10. Being an Honors student interfers with forming friendships with general program students	☐	☐	☐	☐	☐	22
11. Generally, Honors students are more aware of the governance of their department and the university than general program students	☐	☐	☐	☐	☐	
12. Generally, a clear scholastic distinction exists between Honors students and general program students	☐	☐	☐	☐	☐	
13. I believe fourth year Honors students are at a great disadvantage because they are still undergraduate and not graduate students	☐	☐	☐	☐	☐	
14. What, if any, privileges or advantages make being an Honors student worthwhile?	☐	☐	☐	☐	☐	

____

____

____

____

____

☐ 27
☐
☐
☐

15. What disadvantages and/or obligations make being an Honors student a drag?

____

____

____

____

____

☐ 31
☐
☐
☐

THANK YOU FOR YOUR HELP

APPENDIX B

HONORS ALUMNI QUESTIONNAIRE

HONORS PROGRAM QUESTIONNAIRE

I am presently living at: ______________________________
(Street)

____
(City) (Province)

⑥ ______________________________

Please check the appropriate box.

	Yes	No
1. Did you write a thesis or dissertation during your final year?	☐	☐ 16
2. Was the Honors program your first choice of program in the university?	☐	☐
3. Have you attended graduate school since you graduated?	☐	☐
4. If you attended graduate school, did you enter the same field in which you received your honors degree?	☐	☐
5. If you have not attended graduate school, do you plan to do so in the near future?	☐	☐
6. Did you find that your Honors degree was recognized in the business world?	☐	☐
7. Did your degree help you find the type of job that you wanted?	☐	☐

THE FOLLOWING SECTION DEALS WITH YOUR IMPRESSIONS OF THE ACADEMIC COMMUNITY. PLEASE RESPOND TO EACH STATEMENT BY CHECKING THE APPROPRIATE BOX, WHERE S = strongly agree; s = agree, n = neither agree nor disagree; d = disagree and D = strongly disagree.

	S	s	n	d	D	
8. I feel that the Honors program serves a purpose that cannot be filled by another program	☐	☐	☐	☐	☐	23
9. I believe that Honors students should be closely supervised in their course selection	☐	☐	☐	☐	☐	
10. I feel that the Honors program should be eliminated	☐	☐	☐	☐	☐	
11. Generally, I agree that Honors students are more conservative than general program students	☐	☐	☐	☐	☐	
12. I feel that the Honors program gave me something of value that I would not otherwise have obtained from any other program	☐	☐	☐	☐	☐	

If you agree, what did you receive?

____

____

____

☐☐ 28

	S	s	n	d	D
13. I find that Honors students are highly visible in the classroom (that is, other students know which of their classmates are Honors students)...................	☐	☐	☐	☐	☐
14. Being an Honors student interfered with forming friendships with general program students	☐	☐	☐	☐	☐
15. It has been my experience that professors treat Honors students differently than general program students	☐	☐	☐	☐	☐

Check one: They are treated: More Favourably ☐

Less Favourably ☐

	S	s	n	d	D	
16. Generally, Honors students are more aware of the governance of their department and the university than general program students	☐	☐	☐	☐	☐	34
17. Generally, a clear scholastic distinction exists between Honors students and the general program students	☐	☐	☐	☐	☐	
18. I believe fourth year Honors students are at a great disadvantage because they are still undergraduates and not graduate students	☐	☐	☐	☐	☐	

19. What, if any, privileges or advantages made being an Honors student worthwhile?

37

20. What disadvantages and/or obligations made being an Honors student a drag?

THANK YOU FOR YOUR HELP

APPENDIX C

HONORS WITHDRAWALS QUESTIONNAIRE

HONORS PROGRAM QUESTIONNAIRE

1. Name ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
Surname

☐☐☐☐☐☐☐☐☐☐ ☐ 2. 6 ☐☐☐☐☐☐
First M.I. Identification No.

3. Faculty: 18 ☐ Arts ☐ Science ☐ Other

4. I was enrolled in the Honors program of the Department of ______________

5. I am presently living at ______________________________
(Street)

____
(City) (Province)

③

Please answer the following questions by checking the appropriate box.
S = strongly agree, s = agree, n = undecided or neutral, d = disagree and D = strongly disagree.

	S	s	n	d	D
6. I feel that the Honors program serves a purpose that cannot be filled by another program	☐	☐	☐	☐	☐ 16
7. I believe that the Honors students should be closely supervised in their course selection	☐	☐	☐	☐	☐
8. I found that Honors students were highly visible in the classroom (that is, other students knew which of their classmates were Honors students)	☐	☐	☐	☐	☐
9. I feel the Honors program should be eliminated	☐	☐	☐	☐	☐
10. It has been my experience that professors treated Honors students differently than they did general program students	☐	☐	☐	☐	☐

10a. Check one: Honors students were treated:

More Favorably ☐ 21

Less Favorably ☐

	S	s	n	d	D
11. General program students are more aware of the governance of their department and the university than Honors program students	☐	☐	☐	☐	☐
12. It is my opinion that most Honors students intellectualize their problems to avoid dealing directly with them	☐	☐	☐	☐	☐
13. Generally, a clear scholastic distinction exists between Honors students and general program students	☐	☐	☐	☐	☐
14. I believe that fourth year Honors students are at a great disadvantage because they are still undergraduates not graduate students	☐	☐	☐	☐	☐

	Yes	No
15. Was the Honors program your first choice of program in the University?	☐	☐
16. Did you receive a degree after withdrawing from the Honors program?	☐	☐
17. Have you attended graduate school since you dropped out of the Honors program?	☐	☐
18. If you attended graduate school, did you enter in the same field as your Honors program?	☐	☐
19. Do you ever plan to obtain the Honors degree that you abandoned?	☐	☐
20. Did you have any difficulty maintaining the average required of Honors students by your department?	☐	☐
21. Did you leave school when you withdrew from the Honors program?	☐	☐

22. If so, what did you leave school to do?

	Yes	No
Do you feel that you made the right decision?	☐	☐

Explain.

THANK YOU FOR YOUR HELP

APPENDIX D

GENERAL PROGRAM STUDENTS QUESTIONNAIRE

GENERAL STUDENT QUESTIONNAIRE

ON THE HONORS PROGRAM

1. Name ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Surname

☐☐☐☐☐☐☐☐☐☐☐ ☐ 2. 6 ☐☐☐☐☐☐

First M.I. Identification No.

3. Faculty: 12 ☐ Arts ☐ Science ☐ Other

4. Program Specialization (e.g., Anthropology, Classics, etc.) ______________ ☐☐ 14

2.

Please answer the following questions by checking the appropriate box.
S = strongly agree, s = agree, n = undecided or neutral, d = disagree and D = strongly disagree.

	S	s	n	d	D
5. I feel that the Honors program serves a purpose that cannot be filled by any other program	☐	☐	☐	☐	☐ 16
6. I believe that Honors students should be closely supervised in their course selection	☐	☐	☐	☐	☐
7. I find that Honors students are highly visible in the classroom (that is, other students know which of their classmates are Honors students)	☐	☐	☐	☐	☐
8. I think the Honors program should be eliminated	☐	☐	☐	☐	☐
9. It has been my experience that professors treat Honors students differently from general program students	☐	☐	☐	☐	☐

9a. Check one: They are treated: More Favorably ☐

Less Favorably ☐

	S	s	n	d	D
10. General program students are more politically active than Honors students because they don't have as much to lose (as far as department retribution goes)	☐	☐	☐	☐	☐ 22
11. Honors students are more aware of the governance of their department and the university than general program students	☐	☐	☐	☐	☐
12. Generally, a clear scholastic distinction exists between Honors students and general program students	☐	☐	☐	☐	☐
13. I feel that it would be more advantageous to go to graduate school with a three year general degree than to spend four years as an undergraduate	☐	☐	☐	☐	☐
14. I would like to be an Honors student, but I can't, or don't wish to, maintain the average required of Honors students	☐	☐	☐	☐	☐
15. I can not afford (financially) the fourth year as an undergraduate	☐	☐	☐	☐	☐
16. I can not spend four years on the campus because I am not emotionally suited to this type of life	☐	☐	☐	☐	☐
17. I don't believe that Honors students are any brighter than general program students, they just work harder	☐	☐	☐	☐	☐

18. I plan to go to graduate school.

Check one: here ☐

at another university ☐

19. Do you plan to go to graduate school in the same field as your major?

yes ☐ no ☐

20. How many of your friends are currently graduate students? ________ ☐ 32

21. How many of your friends are currently Honors students? ________ ☐

THANK YOU FOR YOUR HELP

APPENDIX E

FACULTY QUESTIONNAIRE

The following questions deal with your views on the Honors program. Please circle the appropriate letter where S = strongly agree; s = agree; n = neutral or undecided: d = disagree and D = strongly disagree.

IF YOUR FACULTY HAS NO HONORS PROGRAM ANSWER THIS QUESTION.

1. If my faculty were to consider an Honors program, I would actively support it. S s n d D

IF YOUR FACULTY HAS NO HONORS PROGRAM, PLEASE ANSWER THE REST OF THE QUESTIONS WITH THE HONORS STUDENTS YOU KNOW FROM OTHER DEPARTMENTS IN MIND.

2. I feel that Honors programs serve a worthwhile purpose. S s n d D

3. It is easy to spot Honors students in my classes. S s n d D

4. I feel that the Honors students should be closely supervised in their course selections. S s n d D

5. General program students are more challenging to teach than Honors students. S s n d D

6. I feel that a clear scholastic distinction exists between the Honors students and the general program students. S s n d D

7. I think that the Honors program should be eliminated. S s n d D

8. I usually take note of who the Honors students are in my class. S s n d D

9. Generally, Honors students tend to be less aware of the administration of the University than general program students. S s n d D

10. I would like to be more directly involved with the Honors students. S s n d D

11. I think fourth-year Honors students who have done well in their first three years should be given financial assistantship. S s n d D

12. It is my opinion that the four-year program serves the same purpose as the Honors program. S s n d D

13. I believe that Honors graduates have better job opportunities than the general program students. S s n d D

14. I think the Honors program should be maintained as it provides a challenge for the brighter students. S s n d D

15. I think the Honors program provides a device for selecting good graduate students because those that do well in the Honors program will do well in graduate work. S s n d D

COMMENTS:

Thank You

APPENDIX VIII

UNIVERSITY OF ALBERTA

THE GRADUATE TEACHING ASSISTANT
AT THE UNIVERSITY OF ALBERTA

BY

DAVID OTTO

OFFICE OF INSTITUTIONAL RESEARCH AND PLANNING

MARCH, 1972

As a member of the research staff in the Office of Institutional Research and Planning who serves as resource person to the Committee to Investigate Teaching I have, from time to time, been exposed to some tantalizing research problems. When the topic of examining specific aspects of the life of the Graduate Teaching Assistant at the University of Alberta was suggested to me, I thought it would be a beneficial undertaking for this university in particular, and for all of higher education in general. It should be noted that while this present study was triggered by my involvement with CIT, the project is my own.

In March of 1971 questionnaires were sent to the Graduate Teaching Assistants currently on payroll. The objectives of the study were to learn how the GTA sees himself as a prospective teacher and as a struggling graduate student. Is he able to support himself? Can he manage both the course work in his own program and the demands of his Assistantship? Is he happy with his life as a graduate student?

I am indebted to Misses Iris Jackson and Judy Brunt for patiently checking over the returned questionnaires. Credit goes to Dr. R. W. F. Wilcocks for initially posing the problem, and commenting on the first draft of the questionnaire. Finally a special word of thanks to Dr. W. A. Preshing and the other members of the Office of Institutional Research and Planning for support in this endeavor.

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II. How clear are you about the limits of your responsibility in your present appointment . . ? 2

III. "From a purely mechanical point of view, how available is your current supervisor . . ?" 3

IV. "Below is a list of the various decisions you . . may be asked to make. Please indicate the amount of voice or influence you feel you currently have in each of the following situations . . (where) 1 = total voice, 2 = strong voice, . . ., 5 = no voice at all . ." 5

V. "To what degree do you feel that the work which you do as a . . . G.T.A. is professionally rewarding?" 6

VI. "How satisfied are you with your present appointment . . when you consider the expectation you had for . . (it)?". 6

VII. "To what degree do you feel that the work which you are now doing as a G.T.A. . . is personally rewarding?" 7

VIII. "Below are some of the advantages which holding an appointment in one's department offers. Please rank each according to its importance to you, where 1 = most important, 2 = next most . . " 8

IX. "Approximately how many hours a week, on the average, do you now spend working (outside the University)?" . . . 9

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SYNOPSIS

Many facets of the G.T.A.'s academic and personal life were surveyed: his perception of financial need, his feelings of both satisfaction and dissatisfaction resulting from his appointment, the nature of existing rapport between the supervising professor and the G.T.A. and finally the degree of perceived participation the G.T.A. has in certain administrative aspects of the course he helps teach. The following observations emerge from this study:

Financial Need

Nineteen of the 379 G.T.A.'s who answered the questionnaire indicated they currently held jobs outside the University. In addition, many married G.T.A.'s (134 of the 144 G.T.A.'s in the survey) indicated that they felt it was necessary for their spouses to work in order to " . . make ends meet . .".

Satisfaction with the Position

Two categories of satisfaction were studied: 1) individual feelings of satisfaction as a result of his position and 2) perceptual satisfaction resulting from the status of the position itself.

For most of the G.T.A.'s (252 of the 373 who responded), their appointment proved to satisfy their concepts of appointment. A large number of G.T.A.'s (126 of 365) were neither satisfied nor dissatisfied with any personal reward feelings stemming from their appointment, which suggests that they tend to view the position as "just a job."

It is a special kind of "job," however, because it is embedded in the career aspirations of most of the G.T.A.'s. Eighty percent (80%) of the respondents viewed their appointment as an opportunity to develop professionally as well as an opportunity for personal intellectual improvement. (299 of 370).

On the other hand, any gainful employment will interfere with one's studies; and a fair number of the G.T.A.'s in this study (133) felt that they do not have the time to bring their own academic work up to the standard of excellence they feel they can obtain.

Supervision

Good rapport exists between most of the G.T.A.'s and their supervisors. Not only does the communication between superior and subordinate appear to be good, but many of the G.T.A.'s indicate that they felt free to approach and discuss course-related problems with their supervisors.

Participation

All the G.T.A.'s in the study indicated that they were able to excercise a moderate amount of influence in the content of the course they helped teach. The G.T.A.'s appear to have a good deal of influence in the day-to-day evaluation of their students' progress, but little voice in the composition of mid-term and final examination. As most G.T.A.'s are given the task of grading mid-term and finals, they seem to feel that their judgment was actively solicited prior to the submission of grades to the Registrar's Office.

THE GRADUATE TEACHING ASSISTANT AT THE UNIVERSITY OF ALBERTA

I. INTRODUCTION

If the Committee to Investigate Teaching is to find a means of improving teaching it seems logical that one of its foci be on the apprenticeship system of teacher training. Throughout the university, young graduate students are tutored in the art of teaching by professional members of their discipline.

The Graduate Teaching Assistanship performs a vital role in the scheme of advanced learning. First, it provides the graduate student with an opportunity to gain some insight into the teaching profession. Second, it offers some financial support to the graduate while he is seeking an advanced degree. Finally, this division of academic labor provides a needed service to the university as a whole by permitting senior staff members more time to devote to tasks only they are qualified to undertake.

Two major areas of the Graduate Teaching Assistantship were studied: 1) the rapport between supervisor and subordinate, and 2) the graduate student's own impression of his assistantship.

II. SUPERVISION

Without evidence to the contrary, one must presume that the young graduate student is on the lower end of the master teacher-apprentice dyad in higher education. How well he learns this trade will be contingent, in part, upon how well he is supervised. Three elements of this relationship were examined: clarity and detail of supervisory instructions, accessibility of the supervisor and the G.T.A.'s knowledge of the limits of his responsibility.

The Nature of the Supervisor's Messages

One hundred and eighty-five of the G.T.A.'s report that their supervisors give general instructions.[1] Two hundred and five of the G.T.A.'s report having no difficulty comprehending their supervisor's instructions.

---

[1] Early in February the Administrative Data Processing Office was asked to provide a print-out and campus address labels of all G.T.A.'s on current file of academic employees. 605 G.T.A.'s were so identified. The Questionnaire (see Appendix I) was mailed to each G.T.A. 379 usable questionnaires were returned, a return rate of 63%. See Appendix II for Tables on the G.T.A.'s percentage of appointment, the faculty his field is located in, degree sought and his current graduate studies status.

TABLE I

"How well does your current supervisor make clear what he expects of you in your work . . ?"

A			B*		
1. No instructions whatsoever	16	1.	Very ambiguous instructions	5	
2. General instructions	185	2.	Ambiguous	8	
3. Somewhat detailed	81	3.	Occasionally ambiguous	67	
4. Very detailed	37	4.	Clear	177	205
		5.	Very clear	28	
TOTAL	319			285	
Mean	2.43			3.75	
S.d.	0.76			0.73	

* the 6th item in B has been deleted

This is understandable. Members of the academic community tend to view their colleagues as competent individuals, and consequently "direction" in the management sense is less structured and less rigid than what one might expect to find in other social organizations (e.g., business and government). The typical academician is presumed to possess more than average acuity, therefore it is reasonable to expect two individuals in the same field, one senior and the other junior, to communicate with one another and be understood without going into excessive detail.

This last point is corroborated by the large number of G.T.A.'s (200 or 67%) who are quite clear as to where the limits of their responsibilities lie.

TABLE II

How clear are you about the limits of your responsibility in your present appointment . . ?

1.	Not at all clear	5	G.T.A.'s
2.	Not too clear	20	
3.	Fairly clear	74	
4.	Quite clear	134	200
5.	Very clear	66	
	TOTAL	299	

Mean = 3.78

S.d. = 0.91

The Availability of the Supervisor

Recently the literature on higher education has attacked the "absent professor". Many undergraduate students complain, so the reports go, that the professor is never available for consultation, even during posted office hours. Because professors also supervise G.T.A.'s, it seems reasonable to assume that the G.T.A. may lodge the same complaint. This is not the case at the University of Alberta.

Two hundred and fifty of the 337 responding G.T.A.'s (74%) declare their supervisor is " ... readily available and easy to contact ...". Two hundred and ninety-one G.T.A.'s (88%) say he is willing to discuss a work-related problem

TABLE III

"From a purely mechanical point of view, how available is your current supervisor . . ?"

1.	He is very hard to get to see	12	G.T.A.'s
2.	He is available, but not always easy to meet with	75	
3.	He is readily available and easy to contact	250	
	TOTAL	337	

"If you have a problem arising from the work you are doing as an assistant, are you willing to discuss it with your supervisor . . ?"

1.	I am willing, but my supervisor cannot be bothered	6	G.T.A.'s
2.	I am willing and my supervisor is available to discuss the problem with me	291	
3.	I am reluctant because my supervisor cannot be bothered	0	
4.	I am reluctant to talk to my supervisor for reasons other than those given above	34	
	TOTAL	331	

One must conclude that rapport between supervisor and G.T.A. appears commendably good.

Participation in Decision-Making

One ingredient in this excellent rapport could be the degree of influence the G.T.A. feels he has when working with his supervisor. Rensis Likert (1961) is among the growing number of management psychologists[2] who have concerned themselves with ways to motivate subordinates. In a recent study of teaching assistants (Otto, 1969) Likert's "Participative Management" style in one department showed a group of G.T.A.'s who are extremely satisfied with the appointment despite their reporting that they worked more hours per week than the G.T.A.'s in the eight other departments studied. One of the discerning variables which separated these G.T.A.'s from others was the great amount of participation they were able to have in the determination of the courses they taught. According to the professor who supervised most of the G.T.A.'s in this department, the G.T.A.'s had a universal reading list containing some thirty items. Ten of these items were required, but the G.T.A. was free to choose from among any of the remaining twenty. The only requirement was that each G.T.A. must present his prepared syllabus to his fellow G.T.A.'s in a teaching seminar, explain the reason for his choice and defend his syllabus. The supervising professor remarked that discussions in these seminars became so intense that he occasionally had to intervene in order to maintain order. Committed to his course in this manner, the G.T.A. willingly expended extra efforts to achieve its success.

These same "participation in decision-making" questions were used here. (See Q. 22 (c), p. 9, Appendix I.)

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[2] See, for example, Blake & Mouton, 1964; Lesieur, 1959; Marrow, et al, 1967; Likert, 1961; McGregor, 1960; Herzberg, 1966; and Gellerman, 1963.

TABLE IV

"Below is a list of the various decisions you . . may be asked to make. Please indicate the amount of voice or influence you feel you currently have in each of the following situations . . (where) 1 = total voice, 2 = strong voice, . . ., 5 = no voice at all . . "

	Degree of Voice							
	1	2	3	4	5	Total G.T.A.'s	Average Voice	S.d.
The content to be covered in your particular sections or labs	20	69	98	67	60	314	3.25	1.00
The selection of readings and materials	28	73	82	62	70	315	3.25	1.27
The composition of quizzes, paper topics, etc.	55	81	70	42	61	309	2.91	1.38
The composition of mid-term and final exams	44	53	55	42	117	311	3.43	1.48
The determination of the students' final grades	44	70	73	76	59	312	3.11	1.31

All the G.T.A.'s in the study indicated that they were able to excercise a moderate amount of influence in the content of the course they helped teach. The G.T.A.'s appear to have a good deal of influence in the day-to-day evaluation of their students' progress, but little voice in the composition of mid-term and final examination. As most G.T.A.'s are given the task of grading mid-term and finals, they seem to feel that their judgement was actively solicited prior to the submission of grades to the Registrar's Office.

These statistics in Table IV are of G.T.A.'s in all parts of the University. One's intuitive impression is that the parameters of the G.T.A.'s responses in different departments on campus will vary noticably, depending on the particular management style used. This area could bear further exploration.

III. THE G.T.A.'s OWN IMPRESSION OF HIS APPOINTMENT

Examining the degree of supervision given the G.T.A. was only one part of this study. It was hypothesized that the G.T.A. may have some psychological rewards associated with his appointment other than those derived from working with his supervisor. Nine possible psychological rewards emanating from the assistantship were examined. These nine have been divided into two broad categories: (1) those rewards associated with the individual's own feelings about his assistantship and (2) those rewards the G.T.A. saw resulting from the nature of the appointment itself.

One's Own Feelings

Individual G.T.A. feelings of reward were measured in his expression of satisfaction or dissatisfaction with his professional development as a G.T.A. (Q. 2, p. 2, Appendix I); his satisfaction with the appointment compared to his expectation of what the appointment meant (Q. 3, p. 2, Appendix I) and finally his feelings of personal reward as a result of being a G.T.A. (Q. 18, p. 7, Appendix I). Eighty percent of the respondents (299 / 370) indicated they derived some degree of professional reward from their appointment.

TABLE V

"To what degree do you feel that the work which you do as a . . . G.T.A. is professionally rewarding?"

1.	Very unrewarding	13	G.T.A.'s	
2.	Unrewarding	53		Mean = 3.37
3.	Somewhat rewarding	131	299	S.d. = 1.02
4.	Rewarding	113		
5.	Very rewarding	55		
	TOTAL	370		

For a majority of G.T.A.'s in the study, the appointment proved to be what they had expected it to be. Two hundred and fifty-two (or 72%) of the 373 G.T.A.'s who answered this question are satisfied with what the appointment provided.

TABLE VI

"How satisfied are you with your present appointment . . when you consider the expectation you had for . . (it)?"

1.	Very dissatisfied	13	G.T.A.'s	
2.	Dissatisfied	24		Mean = 3.73
3.	Neither satisfied or dissatisfied	84		S.d. = 0.96
4.	Satisfied	179	252	
5.	Very satisfied	73		
	TOTAL	373		

Feelings of personal rewards among the G.T.A.'s in the study are less striking. There is an almost perfect textbook frequency distribution of responses to this question. Most G.T.A.'s (126 of 365; or 34%) are "neither satisfied nor dissatisfied" with their appointment. Slightly more G.T.A.'s are satisfied (N = 98) than dissatisfied (N = 91) with their appointment; and as many G.T.A.'s are extremely dissatisfied as are extremely satisfied (N = 25 each).

TABLE VII

"To what degree do you feel that the work which you are now doing as a G.T.A. . . is personally rewarding?"

1. Very unrewarding	25 G.T.A.'s	
2. Unrewarding	91	Mean = 3.01
3. Neither	126	S.d. = 1.03
4. Rewarding	98	
5. Very rewarding	25	
TOTAL	365	

The large number of G.T.A.'s who are devoid of explicit feelings of personal reward eminating from their appointment would seem to suggest, as Wilson has done[3], that the appointment is seen as a financial means to an end rather than a scholarly end unto itself. What advantages are associated with the status a G.T.A. enjoys?

Perceived Status

The answer to this query was provided by the responses to Question 4, of the questionnaire (see p. 6, Appendix I).

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[3] Wilson's comment was: "In view of the nature of these findings in reference to the lengthening factors it may be inferred that, with respect to their relationship to the completion of doctoral requirements, teaching and research assistantships were perceived by graduates as having had somewhat different functional roles; hypothetically the role of the teaching assistantship was perceived as sustaining (financially) but not directly instrumental whereas the research assistantship was perceived as both sustaining and directly instrumental, particularly with respect to development and implementation of a thesis project." (Wilson, 1965, p.92)

TABLE VIII

"Below are some of the advantages which holding an appointment in one's department offers. Please rank each according to its importance to you, where 1 = most important, 2 = next most . . "

Advantage	Number of Responses	Average Ranking	S.d.	Rank order of the Averages
Contact with Faculty in my department	290	3.46	1.58	5
Contact w/undergrads in my department	303	3.38	1.54	4
Opportunity for professional experience & career training	339	2.28	1.25	2
Opportunity for personal development	307	2.85	1.48	3
Money	336	2.09	1.41	1
Opportunity to provide a service	270	4.19	1.62	6

Money is the most important advantage of holding an appointment, followed very closely by the opportunity for professional experience and opportunity for personal development (Ranks 1, 2 and 3). It does not seem surprising that money ranks first, especially when one observes, as much of the literature does[4], that the graduate appointment functions as many of the bursaries, scholarships and fellowships do: to make advanced study a financial possibility for the young scholar.

Just How Important is Financial Assistantship to the G.T.A.?

The graduate student, after three or four years of undergraduate financial outlay, delays his full earning possibilities an additional few years in order to obtain an advanced degree. Typically, he is at an age when one marries and begins a family[5]. In the University of Alberta last year (1970-71), 76% (or 1651)of the graduate students were married[6].

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[4] Davis (1962), Chase (1970) and Hunter (1967).

One ought bear in mind that the degree of financial need studied here is perceived need, i.e., each individual lives a different life style with accompanying financial expense. In today's world some individuals feel they could live reasonably well on an income of $5,000 per annum, while others would feel impoverished. So to presume that one income figure would suffice to meet all the needs of all individuals would be unwarranted.

Perceived financial need was, therefore, examined from a number of different perspectives. First, we have factual data on the percentage of appointment the G.T.A.'s held (see Table I in Appendix II). Second, we asked the G.T.A.'s if they currently held jobs outside of the University, and finally, we examined the situation of spouses who work to support the G.T.A.

Three hundred and four of the 370 G.T.A.'s in Table I of Appendix II were appointed "full-time" (i.e., .33 F.T.E.). This represents 82% of the respondents in this study. When asked if they also held jobs outside the University, sixteen of the full-time appointed G.T.A.'s and three of the sixty-six G.T.A.'s appointed less than full time answered "yes".

TABLE IX

"Approximately how many hours a week, on the average, do you now spend working (outside the University)?"

Hours Per Week	Full Time G.T.A.'s	Part Time G.T.A.'s
0 - 4	5	1
5 - 9	2	1
10 - 14	1	
15 - 19	4	
20 - 24	2	
25 - 29	0	
30 - 34	1	
35 - 39	1	
	16	2

---

[5] Hunter (1967) reports 61% of the 477,535 graduate students surveyed in 1965 were married. An additional 4% were single, with dependents (p. 8). See also Davis (1962), chapter three.

[6] University of Alberta Registrar's Office - Summary of Statistics (1970-71).

There is a third way of assessing the G.T.A.'s degree of perceived financial need. Each G.T.A. was asked if his spouse works, and if he feels that his spouse must work " . . in order to help ends meet . . " (Question 4, p. 3, Appendix I). One hundred and forty-four (or 37%) of the responding G.T.A.'s said their spouses do work, and of these, 134 felt it was necessary for them to work.

TABLE X

Does Your Spouse Work?			Do You Feel Your Spouse Has To?	
Yes	144	→	Yes	134
No	100	→	No	10
No Ans.	135			
	379			144

A fourth way of measuring the need for financial support is to determine how many students interrupt their graduate work to replenish the exchequer Wilson (1965) in his survey of advance degree holders from 23 colleges and universities in the southeastern United States, reports that the first of fifteen reasons cited by the respondents as factors which lengthened the amount of time required to obtain a degree was: dropping out of graduate school temporarily.

The reasons for dropping out of one's program temporarily are not wholly self-evident. Many possible causes suggest themselves. The question here was open ended, i.e., the G.T.A. was asked to write in his own reason. Sixty-one of the 371 G.T.A.'s who responded to question 19 (see p. 7, Appendix I) said they were out of school longer than a half-year. Fifty-eight of these indicated how long they were out. As Table XI indicates, most of them were out from one to three years.

TABLE XI

The Length of Time G.T.A.'s Reported
Temporarily Interrupting their Graduate Work

One year	25	G.T.A.'s
Two years	14	
Three years	10	
More than three years	9	
TOTAL	58	

Fifty-seven of these fifty-eight G.T.A.'s provided reasons why they interrupted their programs of study. Sixty-eight percent (or 39 of the 57) left graduate study to take jobs. Table XII displays the frequency of responses to the reasons given.

TABLE XII

Reasons for Interrupting Graduate Work

To take a job (not specified what)	25	G.T.A.'s	39
To teach in a college or university	4		
To teach in a high school	2		
Teaching, no mention of level	8		
Military service	2		
Personal illness	3		
To attend to personal affairs (marriage, study abroad, etc.)	5		
To organize my thoughts, etc.	8		
TOTAL	57		

Financial support is important to the graduate student, but one senses that the assistantship is more that "just a job". This statement is supported first by the 339 G.T.A.'s who, in Table VIII, ranked "opportunity for professional experience and career training" a close second to "money". More support comes from another question (Table V), where 80% of the respondents find some degree of professional reward from their appointment. A final piece of supportive evidence resides in the decision of 39 of the G.T.A.'s to renew their pursuit of an advanced degree after dropping out temporarily to work, (Table XII).

SUMMARY

The G.T.A.was examined as an apprentice instructor at the U of A. Many facets of his academic and personal life were surveyed: his perception of financial need, his feelings of satisfaction and dissatisfaction resulting from his appointment, the nature of rapport between the supervising professor and the G.T.A. and finally the degree of perceived participation the G.T.A. has in certain administrative aspects of the course he helps teach.

Financial Need

Most of the G.T.A.'s seem to be willing to sustain financial debts in order to pursue their advanced degrees, although 19 of the G.T.A.'s indicated they currently held jobs outside the University. Many married G.T.A.'s (134 of the 144 G.T.A.'s in the survey) indicated that they felt it was necessary for their spouses to work in order to " . . make ends meet . . ".

Satisfaction with the Position

Two classes of satisfaction were studied: individual feelings of satisfaction as a result of his position and perceptual satisfaction resulting from the status of the position itself.

For most of the G.T.A.'s, their appointment proved to be what they had expected it to be. A large number of G.T.A.'s were neither satisfied nor dissatisfied with any personal reward feelings stemming from their appointment, which suggests that they tend to view the position as "just a job".

It is a special kind of "job", however, because it is embedded in the career aspirations of most of the G.T.A.'s. Most of the respondents viewed their appointment as an opportunity to develop professionally as well as an opportunity for personal intellectual improvement.

On the other hand, any gainful employment will interfere with one's studies; and a fair number of the G.T.A.'s in this study (133) felt that they do not have the time to bring their own academic work up to the standard of excellence they feel they can obtain.

Supervision

Good rapport exists between most of the G.T.A.'s and their supervisors. Not only does the communication between superior and subordinate appear to be good, but many of the G.T.A.'s indicate that they felt free to approach and discuss course-related problems with their supervisors.

Participation

The trend in the governance of higher education in North America has been towards a greater representation from concerned elements of the academic community[7]. The U of A has been an active part of this trend; by increasing student representation on GFC and on faculty and departmental staff committees (GFC Minutes, Feb. 1971). One wonders if this increased representation will (or should) also be present in the instructional area. At present, the G.T.A. has some influence in the determination of what materials and units are part of the course syllabus. He takes an active hand in composing daily quizzes and term-paper topics, but has little to do with the composition of final and mid-term examinations. It is felt that the degree of participation the G.T.A. has will vary from department to department, depending on the particular management style that permeates the department.

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[7] See, for example, Keeton, 1971; U of Toronto, 1970; Duryea, 1971; and the June 1971 issue of the Journal of Higher Education.

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Study Number ____ APPENDIX I April, 1971

GRADUATE ASSISTANT QUESTIONNAIRE

General Information:

1. What degree program are you on, and what is your current status?

   Degree program ______________________________

   Degree sought (Circle only one number)

   1 Masters (MS, MSc, etc.)
   2 Ph.D.
   3 Professional degree (MD, DDS, LLB, etc.)

   Current Status (Circle only one number.)

   1 Probationary graduate students
   2 Qualifying graduate student
   3 Candidate for a Master's Degree
   4 Provisional candidate for a doctorate degree
   5 Combined MD/Ph.D. program student
   6 Special student
   7 Post Doctoral fellow
   8 Other ______________________________
   ____

2. What type of a position will you be seeking once you receive your degree? (Examples: a MSc in Chemistry might seek a job in a petroleum industry laboratory; a MA in Educational Administration might look for a school administrator's job, etc.)

   First Choice:

   Type of Position ______________ in ______________
   Type of organization

   Second Choice:

   Type of Position ______________ in ______________
   Type of organization

3. I have been a GRA or GTA for a total of ☐☐.☐ academic years. (Note: two terms = one academic year. If you were a GTA, GSA, or GRA for one term, then put down .5 years. Count this current year as a full year, even though it is not over yet.)

4. When did you receive your bachelor's degree? (Use numbers, where 01 = January, 12 = December, and the last two digits of the year, e.g., '68)

   ☐☐ month, ☐☐ year

Please do not write below this line.

5. Where did you earn your bachelor's degree? ____________________

[redacted]

6. When did you start your graduate work? (Note: Please exclude any double enrolment during your last year as an undergraduate.)

☐☐ month, ☐☐ year

7. Do you live in university housing? (Circle one of the numbers below.)

1 Yes
2 No
3 Not applicable

Specific Information:

1. How satisfied have you been with your progress towards obtaining your current degree? (Circle one number)

1 Very dissatisfied
2 Dissatisfied
3 Neither satisfied nor dissatisfied
4 Satisfied
5 Very satisfied

2. To what degree do you feel that the work which you do as a GRA, GSA, or GTA is professionally rewarding. (Circle one number.)

1 Very unrewarding--it contributes nothing to my professional development
2 Unrewarding--it makes a very mild contribution to my professional development
3 Somewhat rewarding--about half of what I do helps me grow professionally
4 Rewarding--most of what I do as an assistant helps my professional development
5 Very rewarding--almost everything I do contributes to my professional development

3. How satisfied are you with your present appointment as a GRA, GSA, or a GTA when you consider the expectation you had for the appointment when you first took it? (Circle one number.)

1 Very dissatisfied
2 Dissatisfied
3 Neither satisfied nor dissatisfied
4 Satisfied
5 Very satisfied

4. If you are married, does your spouse have a job? (Circle one number.)

1 No

2 Yes → Do you feel that your spouse has to work in order to help ends meet?

1 Yes

2 No

5. Compared to the other graduate students in your department who are working for a degree, how do you think you have been progressing through each stage? Please use numbers from the following scale, and apply them only to those items which your department now requires for the degree you are seeking.

0 = Not applicable, or I have not reached this state as yet.

1 = I have been moving much faster than the other graduate students in my department.

2 = I have been moving a little faster than the other graduate students in my department.

3 = I have been moving about equal with the others.

4 = I have been moving a little slower than the others.

5 = I have been moving much slower than the others.

(Place the appropriate number in each box below.)

☐ Probationary graduate student

☐ Qualifying graduate student

☐ Candidate for a master's degree

☐ Provisional candidate for a doctor's degree

☐ Candidate for a doctor's degree

☐ Combined MD/Ph.D. program

6. Do you feel your own academic progress has suffered because of your current appointment as a GTA, GSA, or a GRA? (Circle one.)

1 Yes, a very great deal

2 Yes, quite a lot

3 Yes, to some extent

4 No, hardly at all

5 No, defintitely not at all

7. Is there someone in your department who is directly responsible for your work as a GTA, GSA, or GRA? (Circle one number.)

   1 Yes Who? ____________________

   2 No Please explain. ____________________

   ____

   ____

   3 Don't know of anyone Please explain. ____

   ____

   ____

IF YOU CIRCLED 2 OR 3 IN QUESTION NO. 7, SKIP TO QUESTION 12.

8. How well does your current supervisor make clear what he expects of you in your work as a GTA, GSA, or GRA? Answer both Part A and Part B. (Circle one number in each part.)

   A. He Gives:

   1 No instructions whatsoever (N.B. Circle 6 in Part B and to on to Question No. 9)

   2 General instructions

   3 Somewhat detailed instructions

   4 Very detailed instruction

   B. He Gives:

   1 Very ambiguous instructions

   2 Ambiguous instructions

   3 Occasionally ambiguous, occasionally clear instructions

   4 Clear instructions

   5 Very clear instructions

   6 See Part A, No. 1

9. How clear are you about the limits of your responsibility in your present appointment as a GTA, GSA, or GRA? (Circle one number.)

   1 Not at all clear

   2 Not too clear

   3 Fairly clear

   4 Quite clear

   5 Very clear

10. From a purely mechanical point of view, how available is your current supervisor? (i.e., does he keep regular office hours? Can you make an appointment to see him?) (Circle one number.)

    1 He is very hard to get to see.

    2 He is available, but it is not always easy to meet with him.

    3 He is readily available and easy to contact.

11. If you have a problem arising from the work you are doing as an assistant, are you willing to discuss it with your supervisor? (Circle one number.)

    1 I am willing but my supervisor cannot be bothered

    2 I am willing and my supervisor is available to discuss the problem with me

    3 I am reluctant because my supervisor cannot be bothered

    4 I am reluctant to talk to my supervisor for reasons other than those given above

12. Have you ever felt that, as a GTA, GSA, or a GRA, you did not receive adequate recognition for work you had done which resulted in publication? (Circle one number.)

    1 Yes Please describe your plaint ____________

    ____

    ____

    2 No

13. How often do you feel that your appointment and studies both tend to interfere with your social life? (Circle one number.)

    1 Never

    2 Rarely

    3 Sometimes

    4 Rather often

    5 Nearly all the time

14. Below are some of the advantages which holding an appointment in one's department offers. Please rank each according to its importance to you. Where:

1 = The most important advantage
2 = The second most important
3 = The third most important and so on.

Place the appropriate number in each box below.

☐ Contact with the faculty in my department
☐ Contact with the undergraduate students in my department
☐ The opportunity for professional experience and career training
☐ The opportunity for personal intellectual development
☐ Money
☐ The opportunity to provide a service and fulfill a need in the academic community
☐ Other ______________________________
____

15. As a graduate student how often do you think that the amount of class work you have to do as a part of your own degree program adversely affects how well it is done? (Circle one number.)

1 Never
2 Rarely
3 Sometimes
4 Rather often
5 Nearly all the time

NOTE: THE NEXT TWO QUESTIONS WILL BE KEPT IN STRICTEST CONFIDENCE.

16. Do you currently have a job outside the university? (Circle one number.)

1 Yes. Approximately how many hours a week, on the average do you now spend working?
☐☐ . ☐ hours per week
2 No

17. Approximately how many hours a week, on the average, do you now spend actually working as a GTA, GRA, or GSA? (Note: Do not put down the number of hours entered on your contract unless you actually work that many hours.)

☐☐. ☐ hours per week

18. To what degree do you feel that the work which you are now doing as a GTA, GRA, or GSA is personally rewarding? (Circle one number.)

1 Personally, my assistantship has been a bore.
2 It is all right, I guess.
3 I am neither satisfied nor dissatisfied with my assistantship.
4 I get a real thrill from my job.
5 It could not be better.

19. Have you ever been out of graduate school longer than a summer or a term (½ year)? (Circle one number.)

1 No
2 Yes--(a) How many times were you out of school longer than a summer or a term? ☐ times
(b) How long was the longest time you were out? ☐ years ☐ months
(c) Thinking of the longest time you were out, what was the reason (or reasons) for this interruption in your graduate work? ______________

____

____

20. If the University of Alberta were in a position to provide more money to GTA's, GRA's, and GSA's, how do you think it ought to be spent? Using the following scale, rate each of the alternative ways of allocating this money.

1 = Urgent, top priority
2 = Very desirable
3 = Fairly desirable
4 = Not very desirable
5 = Wholly undesirable

Place the appropriate number in each box below.

☐ Provide a dependency allowance for spouse and and children

☐ Establish a long-term (i.e., two or three years) income guarantee in return for a stated obligation.

☐ Waive all tuition fees regardless of the percentage of appointment

☐ Improve insurance and other fringe benefits

☐ Improve physical facilities

☐ Grant a general salary increase to everyone (i.e., to all GTA's, GRA's, and GSA's.)

☐ Reduce the workload for the same amount of money I am now receiving

☐ Establish and subsidize a day-care center

Other alternatives: (Please list and rate.)

☐ ____________________

☐ ____________________

☐ ____________________

☐ ____________________

21. In my department, the graduate student with the heaviest workload is:

1 GTA's
2 GRA's
3 GSA's

22. Below is a list of the various decisions you, as graduate assistants, may be asked to make. Please indicate the amount of voice or influence you feel you currently have in each of the following situations, using the appropriate number from the following scale.

1 = Total voice
2 = Strong voice
3 = Moderate voice
4 = Little voice
5 = No voice at all
6 = This item does not apply to me

22(a). ALL GRADUATE STUDENTS ANSWER THIS SECTION:

☐ Selection of a chairman, associate, or assistant chairman
☐ Promotion or tenure of department's faculty
☐ Promotion or tenure of the academic staff in your school or faculty
☐ Academic discipline of students

22(b). ALL GRA's ANSWER THIS SECTION:

☐ The hours of the day you are assigned to work
☐ The types of materials you are to use in your research work
☐ The subject area you do your research in

22(c). ALL GTA'S AND GSA'S ANSWER THIS SECTION:

☐ The content to be covered in your particular sections or labs
☐ The readings and materials for your particular sections or labs

22 (c) Continued...

☐ The composition of quizzes, paper topics, lab experiments or problems, etc.

☐ The composition of mid-term and final exams

☐ The determination of the students' final grades

The inclusion or exclusion of items on the mid-term and/or final examinations.

	Mid-Term	Final
Inclusion	☐	☐
Exclusion	☐	☐

23. In the space below, please describe what you consider to be your greatest concerns about your participation or lack of participation in the decision-making activities in your department.

This conludes the questionnaire. Thank you very much for participating. Please go back over the questions to see if you have answered them the way you wanted to. Have you missed any questions? When you are satisfied, put the questionnaire in the envelope and drop it in the campus mail.

If you have any comments to make about the university, your particular life as a graduate student or the conditions surrounding your appointment, please use the back of this page for that purpose.

APPENDIX II

TABLE I

Responding G.T.A.'s Distributed According to the Fraction of Appointment

% F.T.E.*	
.33	304 G.T.A.'s
.27	2
.25	4
.17	6
.11	53
.09	1
	370

* F.T.E. = Full Time Equivalence of an Academic Year

REVIEW OF EDUCATIONAL INDEXES & ABSTRACTS

Joyce Chorney

January 1972.

An overview of the indexes and abstracts dealing with education was carried out. More specifically, their value as reference tools in the subject area of Teaching and Learning in Institutions of Higher Education was determined. These library sources were examined within the context of four factors to determine their usefulness in information retrieval: (a) the general field they surveyed; (b) the magazines they surveyed; (c) specificity of classification found within them; and (d) degree of availability of the material offered by them. The indexes and abstracts will appear and be discussed in alphabetical order as listed on the attached sheet and a summary listing the most beneficial sources will follow. Each index and abstract present below in alphabetical order will be described by the particular volume and year that was reviewed.

1) AUSTRALIAN EDUCATIONAL INDEX (Vol. 11 - 12, 1969)

This is an index to books, pamphlets and selected periodical articles on education and educational psychology published in Australia, works on Australian education and works by Australian authors published in other countries. This index surveys approximately 200 periodicals, books, and pamphlets with most of the articles selected from Australian periodicals. The availability of material found in the Australian education index is below average as our libraries do not hold a large stock of Australian periodicals. For information on Australian education, specifically, one should consult the Australian Journal of Education. The classification system found in the Australian educational index is not highly specific. A list of general subject headings is provided, i.e., Psychological tests, speech defects, sociology, etc., for all material indexed. In the index, subject entries follow the subject headings, but become slightly more specific, with sub-divisions occurring. Some cross-references are provided, but one could not zero in on a topic with much examination of this index. The Australian Educational Index has a large section on teaching, but a small one on learning.

2) BIBLIOGRAPHY INDEX (1970)

This is a cumulative bibliography of bibliographies, that is, a subject list of bibliographies in both English and foreign languages in the Roman alphabet which contains 40 or more bibliographic citations. Bibliographies published separately or appearing as parts of books and pamphlets are included. Approximately 1,900 periodicals (many foreign) received by the H.W. Wilson Co. are examined for bibliographic materials. Other periodicals not indexed by this company are also examined. The availability of material is average as there are many foreign articles. This index surveys a wide subject field - psychology, education, science, medicine, agriculture, etc. Quite a large list of bibliographies is found under the subject topic Education. There is detailed sub-division within this area under the sub-division 'periodicals'. As well, a large section is found on higher education and teaching and learning. An extensive sub-divided subject index is provided.

3) THE BRITISH EDUCATIONAL INDEX (1968-69)

The British Educational Index is an index to selected British periodical articles on the general field of education. It covers nearly 100 journals, some of them specialist like History, Greece and Rome, etc., and a few important general journals like Nature and Universities Quarterly. This index is comprised of a subject index and an author index. In the subject index, specific topics are preferred for headings, e.g., Chemistry Teaching, Village Schools, etc., although broader headings are employed when useful. Within each heading, subdivisions are filed alphabetically. The classification system is specific although the choice of terms as headings is not always so helpful (no entries or even references in the first issues under 'Programmed Learning', all this material is under 'Teaching Machines'. There is the occasional lack of consistency, especially in regards to specific aspects of foreign education systems. (Foskett, 1965)* As this index is specifically limited to British periodicals, availability of material is about average. Our libraries do contain many British periodicals but not enough to make articles from this index highly available.

4) BUSINESS EDUCATIONAL INDEX

This is an index of business educational articles compiled from a selected list of periodicals, yearbooks and theses. The Business Educational Index surveys approximately 50 magazines, diverse in scope - e.g., the Journal of Applied Psychology, Business Education Forum, etc. A list of general periodicals and business education periodicals is provided at the back of the index. The availability of this material is below average as it is comprised mainly of American journals and specialized state publications. The classification system is rather general with not detailed subject divisions, e.g., Accounting has a long list of articles but no sub-divisions to indicate specific topics. This index has a large section on Teaching, but very little in the area of business education is on learning.

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* D.J. Foskett, M.A., F.L.A., Librarian, University of London Institute of Education.

5) CANADIAN EDUCATIONAL INDEX (Vol. 6, 1970)

The Canadian Educational Index is a cumulative author, subject index to a selected list of Canadian educational periodicals, books, pamphlets and reports in the general field of education. The periodicals surveyed (approximately 140) are quite diverse, that is, the index contains some of the larger magazines that deal with education and some of the smaller ones, i.e., Canadian Psychologist and Alberta Journal of Educational Research. As it is mainly Canadian publications, availability of material is high. The classification system found in this index is not specific or detailed, but topic sub-divisions do occur. In order to find some specified subjects the list of articles must be scanned. This index devotes much attention to psychology of learning and has a substantial section on teaching.

6) CANADIAN PERIODICAL INDEX (Vol. 22, 1969)

This index surveys approximately 100 or more Canadian magazines covering the arts, business world, education, sports, etc. An overview of the titles indicates that most of the magazines are not hard data scientific journals, but mainly interest journals, e.g., Chatelaine, MacLeans. Most of the magazines appeal to the layman and various interest groups. The sections on Teaching and Learning are not at all extensive. The classification system is quite specific with much sub-division occurring. The availability is high as the periodicals surveyed are well known and can be found quite easily inside or outside the library. This is similar to # 26, the Reader's Guide to Periodical Literature.

7) CHILD DEVELOPMENT ABSTRACTS AND BIBLIOGRAPHY (Vol. 45, Nos 3-4)

These abstracts were examined within the context of the four factors mentioned at the beginning of the report and will not be discussed as they bear no relevance to the area of Teaching and Learning in Institutes of Higher Education.

8) CIRF ABSTRACTS (INTERNATIONAL VOCATIONAL TRAINING INFORMATION & RESEARCH CENTRE - Vol. 10, 1971)

These abstracts convey information about vocational training, ideas, programmes, experience and experiments in periodicals, books, pamphlets, law degrees and other printed material related to operative personnel, supervisors and technical staff in all sectors of economic activity. Information on major trends in other fields of human resources development and utilization as it relates to or influences vocational training is also included. The selection of items is international and very recent (published within the previous six months). The availability of the material is high in terms of the abstracts, but low in locating the actual article. A list of periodicals indexed at the back contains many articles from foreign countries. The classification system is very general, providing broad subject headings, there is no sub-division, thus one would have to look through all the abstracts in a section of a particular topic.

9) COLLEGE STUDENT PERSONNEL ABSTRACTS (Vol. 2, No. 3)

These abstracts are published by the College Student Personnel Institute, a private, non-profit center for information exchange, research and training in areas related to college students and student services. They compile abstracts from journals, conference proceedings, and research reports pertaining to this area. The journals surveyed (approximately 100) are in the area of psychology, sociology and education. The material is highly available as many of the journals are well known and scholarly, and held by most libraries. An author index and general subject index are provided as well as a Table of Contents. The subject index is small and not very specific. These abstracts have a very slight relevance to the area of Teaching and Learning.

10) CURRENT CONTENTS: BEHAVIOURAL, SOCIAL, AND EDUCATIONAL SCIENCES (Vol. 3, No. 44, November 3, 1971)

The weekly issues reproduce, in their original format and frequently in advance of publication, the table of contents of more than 1100 journals reporting world wide research and practice in the behavioural, social and management sciences, and in educational theory and practice. This service is designed to help scholars, scientists, educators and managers keep pace with new developments in their own and related fields. An author index and address directory are found at the back. A very general section guide occurs at the front, i.e., 5 Behdvioural Sciences, Education/General, Education/Specific. The classification system is not very specific and the sections provided are not too large. However, it is time consuming to use this source. The particular issue examined surveyed approximately 120 magazines representative of the field of Psychology, Education, e.g., American Journal of Psychiatry, Journal of Genetic Psychology. The availability of these magazines is high as they are well known and generally held by libraries. The Address Directory in the back is provided for those who desire reprints. This particular source would be valuable to the scholar who wishes to polish off his writing with one last literature search of the very latest articles dealing with his topic.

11) CURRENT INDEX TO JOURNALS IN EDUCATION (Vol. 2, 1970)

CIJE was developed because of inadequate coverage of periodicals by RIE (Research in Education) which has listings of ERIC. CIJE has the subject expertise of the ERIC clearing houses and the vocabulary of descriptor headings developed for indexing of educational literature. The Thesaurus of ERIC descriptors is used in the subject indexes of CIJE. The majority of publications in Vol. 2 represent the core periodical literature in the field of education as well as peripherial literature relating to the field of education. Being an annual cumulation, this volume indexes articles in over 500 educational and education oriented journals. Of these, many are scientific and very relevant in the field of education. The availability of this material is high as the journals are well known and held by many libraries. However, reprints of articles indexed in CIJE are not available from a central source. The classification system found in this volume is very comprehensive and specific. The Main Entry section is grouped into broad subject categories (descriptor groups) so users may focus attention to the field of his interest. A subject index exists with as many as five descriptions per journal article listed here. One cannot zero in on a specific subject without the use of the ERIC descriptor thesaurus (see #15).

12) DSH ABSTRACTS (deafness, speech, hearing) (Vol. 9, 1969)

The purpose of these abstracts is to bring to the attention of professional readers the worlds' literature on deafness, speech and hearing. DSH Abstracts print brief, non-commital summaries of literature published in all major languages pertinent to DSH. Approximately 500 journals are surveyed, mainly scientific hard data journals and journals devoted to DSH. Availability of material is good although many foreign journals are indexed. The classification system though specific will not be discussed as there is little relevance to teaching and learning except as it relates to DSH. Education is a sub-division of one or the other at some time.

13) DISSERTATION ABSTRACTS INTERNATIONAL

(A) THE HUMANITIES AND SOCIAL SCIENCES (Oct. 1971, Vol. 32, #4)

This is a monthly compilation of doctoral dissertations submitted to University Microfilms by more than 290 cooperating institutions in the U.S. and Canada. It surveys the general field of Humanities and Social Sciences. The Table of Contents lists general topics followed by a keyword title index. The classification system becomes quite specific through the keyword title index by which the bibliography entries are classified and arranged. This index lists the references alphabetically by keywords contained in the title. Keywords derived from dissertation titles are printed in bold face type and are followed by the titles in which they occur, the author and page reference of the abstract. Availability of material is above average in conjunction with our microfilm facilities. Abstracts may be obtained on microfilm or as xerographic reproductions. However, contributions from predominantly American Universities lowers the availability. Separate Dissertation Abstract Indexes (retrospective indexes) provide further access to DAI.

14) EDUCATION ABSTRACTS

These abstracts were published by UNESCO but have ceased publication since 1964. Each issue covers a specific field in the area of education such as health education, educational research, correspondence research, etc., and is compiled by an expert on the topic. Practice varies in the actual layout: some authors list the entries consecutively like an annoted bibliography, some write a narrative text referring to the entries which are listed at the end.

Generally an introduction to the topic occurs followed by an annotated bibliography and an abstract. Books, magazines, government publications and documents in the field of education are surveyed. These abstracts are good for an international look into some topics of education. The inside cover gives the list of previous issues and their topics. The classification system is almost non-existent as there is not a cumulative index to the topics in previous issues except in the inside cover which is often missing. The availability of the material is average as it is right there, but is limited to publications before 1964.

15) ERIC (EDUCATIONAL RESOURCES INFORMATION CENTRE)

ERIC is a national information system which dessiminates educational research results, research, related materials, and other resource information. Through a network of specialized decentralized information centres, or clearing-houses, each of which is responsible for a particular educational area, information is acquired, evaluated, abstracted, indexed and listed in RIE (Research in Education). RIE is a monthly abstract journal reporting on newly found research projects supported by the Bureau of Research, U.S. Office of Education, recently completed research on research related reports and other documents indexed by subject, author, investigator and institution. ERIC provides for in-depth search through the Thesaurus of ERIC descriptions. This is a vocabulary of educational terms developed by subject specialists at ERIC Clearinghouses and is used to index documents, projects, reports and journal articles in the ERIC system. By using the Thesaurus one can identify other key research terms (descriptors) listed under the original search terms, that is, one can select synonyms, broader terms, narrower terms and related terms to expand one's search of the monthly issues of RIE, the Annual Indexes and other ERIC reference tools, i.e., Historical Collection, Selected Documents in Higher Education, etc.

ERIC furnishes copies of all types of educational documents at nominal cost. The availability of material is very high as the abstracts of the articles are in RIE. From reading these abstracts one can determine whether the full text would be useful. The articles may then be easily obtained by ordering microfiche or hard copy from ERIC Document Reproduction Service or by checking the availability in the microfiche library via ERIC Educational Documents Index.

16) EDUCATION INDEX (July 1969 - June 1970)

The Education Index provides a cumulated author subject index to a selected list of educational periodicals, proceedings and yearbooks in the English language. It also includes bulletins, monographs and pamphlets printed by the U.S. Government. The subject areas indexed include: administration; preschool, elementary, secondary, higher and adult education; teacher education; counselling and guidance; curriculum and curriculum materials. The journals surveyed in this Index include hard and soft data journals as well as specialized and general journals. The Education Index has a modest claim to international coverage, since it includes a number of Canadian journals, American journals, some half dozen British journals and some Unesco publication. A comprehensive classification system with highly specific subject headings allows one to concentrate on specific topics.

17) EDUCATIONAL ADMINISTRATION ABSTRACTS (Vol. 5, 1970)

These abstracts survey approximately 100 magazines in the area of educational administration. In the Table of Contents four general Area Headings are listed with some sub-division. A subject index is provided in a separate book which is prepared by the ERIC Clearing house on Educational Administration. It is compiled to provide subscribers to Educational Administration Abstracts with a useful reference tool to identify and use the journal articles in Vol. 1-4. The list of terms used in the subject index are taken from the Thesaurus of ERIC Descriptors which lists all the terms that have been developed from the indexing of research reports, projects and other documents processed by ERIC. Such specific classification helps a user zero in on a particular topic. The availability of the material is high as the abstracts are there for general survey and the magazines are easily available in the library.

18) ENCYCLOPEDIA OF EDUCATIONAL RESEARCH (Copyright 1969)

This encyclopedia is designed to provide a convenient source of information about most of the important aspects of education. The research is broadly conceived to include all kinds of contributions to educational knowledge, not simply those resulting from experimental studies. Thus lists of references may include articles presenting analyses of educational problems, critiques of educational practices and reports of practical experience, along with experimental studies. An overwhelming American content may present difficulty in use, especially in terminology. No magazines are surveyed by the EER, rather, articles on various topics are provided by authors or investigators in the field of education. Thus, the availability of the material is high as the articles are right there along with references. A Table of Content Areas is provided followed by a less general table of articles on each content area. Author/article, article/author indexes are provided as well. In the middle of the book the subject index appears. The classification is quite specific (minute sub-divisions) and one can get close to particular topics.

9) EXCEPTIONAL CHILD EDUCATION ABSTRACTS (Vol. 1, 1969-70)

These abstracts are a product of CEC Information Centre (CEC ERIC Clearing house) published by the Council for Exceptional Children, NEA. CEC Information Centre was established at Council for Exceptional Children to serve as a comprehensive source of information on research, instructional materials, programs, administration, teacher education, methods and curriculum for the field of special education. Abstracts stored on computer file of CEC Information Centre are indexed and published in ECEA. Vol. 1 contains the first 500 abstracts placed on file. Future issues will carry abstracts as they are processed. The Centre began acquiring, abstracting and indexing documents in 1967. Significant literature published since 1962 related to education of the handicapped, and gifted was obtained. There is no arrangement or classification of abstract, it is necessary to consult the subject index to identify abstracts on particular subjects. By comparing abstract numbers entered under several index terms it is possible to search for very specific information. Subject indexes in ECEA are cumulative, thus by using the most recent index the user can survey all previous volumes of ECEA. The classification in the subject index is not very specific at all, for example, Learning Disabilities in the index lists many page numbers under the topic, but there is no form of delineation as to the type of learning disability. Availability of the material is high in respect to the abstracts themselves, but average in terms of the documents used. One can purchase documents in microfiche or hard copy from ERIC Document Reproduction Service.

20) HEALTH EDUCATION ABSTRACTS (Vol. 1, No. 4, Spring 1968)

The purpose of these abstracts is to serve as a means of communicating the increasing wealth of significant research basic to health education practice. These abstracts survey a wide field of journals in the area of Psychology, Science, Medicine, etc. Many hard data magazines are included in the survey. The material is above average in availability as the magazines are well known and found in most libraries. The classification is very general and not effective for efficient perusal of information about specific subjects. These abstracts have little relevance to the area of learning although they would be of slight benefit to teaching.

21) LLBA: LANGUAGE AND LANGUAGE BEHAVIOUR ABSTRACTS (Vol. 4, 1970)

These abstracts provide rapid, comprehensive and selective access to literature in language and language behaviour - whatever the disciplinary focus, country of origin, or language in which it is written. Almost 1,000 journals in some 25 languages are screened. The articles are scholarly in nature. A Table of Contents lists 25 disciplines, 11 of which govern Psychology, Educational Psychology and Special Education. The classification system is very general and one must look through all the abstracts under a discipline to ascertain its pertinence to his topic. No subject index is provided. The availability of the material is above average although many foreign journals are surveyed.

22) LANGUAGE-TEACHING ABSTRACTS (Vol. 1-2, 1968-69)

These abstracts survey the field of language teaching and learning. The particular volume looked at had no index or Table of Contents. Volume 3, No. 1 (Abstracts 1-91, January 1970) did have a Table of Contents which was divided into three areas: Language and Linguistics, Studies of particular Languages and Language Learning and Teaching. There is a bibliographical supplement at the end of the abstracts which contains a list of annotated books which are additional to those listed in A Language-Teaching Bibliography. Author and subject indexes to each volume are separated and found at the back of each volume. The subject index is very general and small. There is a list of periodicals after the bibliographic supp. in Vol. 3, but not in Vol. 1-2. The material is below average in availability with many foreign language articles surveyed.

23) MENTAL HEALTH BOOK REVIEW INDEX (Vol. 1-12, 1956-67)

This is an annual list of books selected and reviewed by specialists and organized as a bibliography by librarians. This index aims at a synthesis of the significant monographic literature in the behavioural science. The list of books is based on an unpublished cumulative file of references appearing in 250 journals in the English language, relating to Behavioural Sciences and the field of mental health. Approximately one-third of the journals originate outside the U.S. The fields represented by the index include parts of the biomedical and social sciences and the humanities with a concentration in the psychological sciences. Individual books range in scope, from the study of an entire discipline to that of a particular problem; in presentation, from technical to general in treatment. Each annual issue of the Index lists about 300 books with references to three or more reviews, at least one of the reviews cited is from a journal in the psychological sciences. A cumulative author-title index is provided as well as an author and journal index. The classification system is not specific enough as books are listed chiefly by author and not subject. The availability of the material is above average as many well known journals are surveyed.

24) MENTAL RETARDATION ABSTRACTS (Vol. 8, No. 1, Jan-Mar 1971)

The Mental Retardation Abstracts are a specialized information service designed to assist the Division of Mental Retardation, Rehabilitation Services Administration in meeting its obligation to plan, direct and coordinate a comprehensive nation-wide program for those with mental retardation and related handicaps. These abstracts meet the needs of investigators and other workers in the field of mental retardation for information about new developments and research results. Approximately 50 magazines in the area of Psychology, Science and Medicine, and Education relating to mental retardation are surveyed. The magazines are highly available as well. Reprints can be obtained by writing to the authors. A general table of contents is provided followed by a specific subject index. An author index is found at the back. These abstracts are of very slight benefit in the area of Teaching and Learning.

25) PSYCHOLOGICAL ABSTRACTS (Vol. 44, No. 1-4)

These abstracts furnish non-evaluative summaries of the world's literature in psychology and related disciplines. Approximately 500 magazines in the above-mentioned area are surveyed. These magazines are quite scholarly in nature and international in coverage. The availability of material is quite high even though there are a number of foreign magazines and articles. The classification system is quite specific. The Table of Contents provided is more detailed than most, and the subject index allows one to get quite close to a particular topic. Cross references occur often and it is wise to think of a number of descriptors to reach a topic. Annual alphabetical author and subject indexes are provided, which include abstracts from non-American literature. A large area is devoted to Teaching, Learning and Education.

26) READER'S GUIDE TO PERIODICAL LITERATURE (Vol. 30, Mar. 1970-Feb. 1971)

This is a cumulative author subject index to periodicals of general interest published in the U.S. The selection of periodicals for indexing is accomplished by subscriber vote. Authors and subjects are arranged in one alphabet, as well as titles. Approximately 170 magazines of layman interest reading type, e.g., McCalls, Mechanics Illustrated, etc., are surveyed. The availability of material is high. The classification system is more specific than usual. The information provided by this source would only be of slight benefit to the area of Teaching and Learning (see the Canadian Periodical Index, No. 6).

27) SOCIOLOGY OF EDUCATION ABSTRACTS

Abstracts relevant articles from 270 selected journals (many of them foreign) and books published by 320 publishers in the world. These abstracts cover the following subjects: all areas of sociological sciences and education; education and vocational guidance; education of the culturally disadvantaged; industrial training; education in developing countries; organization and administration of education; educational planning; methods of research; and higher education. The classification system is not too specific as no subject index is provided. However, an Education Study Areas Index allows one to come close to certain sub-topics. The Study Area Index is too small though, and there is no relationship between areas. The material is above average in availability with journals in Psychology, Sociology, Education, Science and Medicine. Many of these can be obtained from the library.

28) STATE EDUCATION JOURNAL INDEX (Vol. 7-8, 1969-71)

This is an annotated index of state education journals surveying the broad field of education. Approximately 50 educational publications in the U.S. are used by this index. Classification of subjects is not too general; alphabetical sub-divisions occur. However, one must think of more than one descriptor to get information on any one topic. Some cross-referencing does occur. The availability of material is quite low (only American content) and no indication was provided as to how articles may be obtained. Very few of the publications would be held by our libraries.

29) SUBJECT INDEX TO CHILDREN'S MAGAZINES (Vol. 21-22, 1969-70)

This index surveys approximately 55 children's magazines in all areas of interest to children. Further discussion will not occur as it is of no relevance to the area of Teaching and Learning in Institutions of Higher Education.

30) TECHNICAL EDUCATION ABSTRACTS (Vol. 10, 1969-70)

These abstracts provide a service for all those inside and outside the public education system concerned with science, technical and further education including education and training for industry and commerce at all levels. The abstracts are drawn from both periodicals and separately published works. Each issue (with about 120 abstracts) has a subject and author index, with the last issue having a cumulative index. The Table of Contents or subject index is not too general, but one cannot reach close to a specific topic. A list of periodicals abstracted is not provided so availability of material is difficult to ascertain and only by looking at listings under the subject index could this be done. Specific technical and educational journals were found and their availability would probably be average or slightly less than average.

31) ULRICH'S INTERNATIONAL PERIODICALS DIRECTORY (Vol. 1, 1971-72)

This is a classified guide to current periodicals, foreign and domestic in the field of Literature, Science, Agriculture, Education, Medicine, Psychology and Technology. The journals vary in scope from scholarly to general interest. The Main Text of the Directory consists of entries for about 50,000 current periodicals alphabetically arranged under 223 main subject headings and sub-headings. There is an index to new periodicals that have started and an index of those that have ceased publication recently. This directory is helpful in providing an investigator with a magazine that covers a specific area, e.g., Education Equipment. The index contains a Key to Subjects which allows one to locate specific sub-topics and then find journals that deal with them. Availability of material is above average although it is international in scope.

32) A WORLD BIBLIOGRAPHY OF BIBLIOGRAPHIES (T. Besterman)

Besterman has provided a bibliography of bibliographies of books, pamphlets, periodicals and every kind of type set and 'near print' matter (e.g., manuscripts, letters, documents, deeds, etc.) which is international in scope. Entries are made under quite specific headings; where general headings occur, general bibliographies are provided. Entries are arranged by subjects with an author index following. Collective headings are used to save repetition, as well as much cross-referencing. A separate subject index (Vol. V) to four other volumes is provided. This particular volume (Vol. V) does not have much on Teaching and Learning or Education, but Volume II has quite a large section on Education. This work surveys a wide scope of subjects in the area of Education, Medicine, Science, Technology, Psychology, etc. The material is below average in availability as many articles and bibliographies are foreign. The bibliography is only as recent as 1963 and its relevance to the area of Teaching and Learning specifically is not great.

SUMMARY

1. The indexes and abstracts with little or no relevance to the area of Teaching and Learning in I.H.E. are:

   Canadian Periodical Index
   Exceptional Child Education Abstracts
   Mental Retardation Abstracts
   Readers' Guide to Periodical Literature
   Subject Index to Children's Magazine
   Child Development Abstracts and Bibliography

2. The abstracts and indexes with only slight use to the area of Teaching and Learning in Institutions of Higher Education are:

   Educational Administration Abstracts
   Mental Health Book Review Index
   College Student Personnel Abstracts
   Current Contents: Education
   Ulrich's International Periodicals Directory
   Bibliography Index

   These are only slightly relevant because of limitations in scope (topics indexed), type of material indexed (general interest magazines, books only, etc.), and the existence of time consuming classification systems.

3. The indexes and abstracts which provide an investigator with an average topic scope, good availability of material, a somewhat specific classification scheme for more than surface investigation in the area of Teaching and Learning are:

   Australian Education Index
   British Education Index
   Canadian Education Index
   Dissertations Abstracts International
   Encyclopedia of Educational Research
   Sociology of Education Abstracts

4. Indexes and abstracts of limited use to the area of Teaching and Learning are:

   Education Abstracts
   Besterman's World Bibliography of Bibliographies

   as the former ceased publication in 1964 and the latter covers material up to 1963 only.

5. The indexes and abstracts with limited but specific use in special areas of Teaching and Learning are:

   Business Education Index
   CIRF
   DSH
   Health Education Abstracts
   LLBA: Language & Language Behaviour Abstracts
   Language Teaching Abstracts
   Technical Education Abstracts

6. The indexes and abstracts for in depth searches in the area of Teaching and Learning provided by comprehensive, detailed classification systems, wide topic and sub-topic diversity, scholarly, hard-data, research-oriented, highly available periodicals and documents are:

   CIJE
   ERIC
   Education Index
   Psychological Abstracts

APPENDIX X

DRAFT

AN INNOVATIVE APPROACH TO TEACHING AT THE COLLEGE LEVEL

By

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In an era of radical change such as the present, no approach is more impractical than one which takes the present arrangements and practices as given, asking only, "How can we do what we are now doing more effectively?" or "How can we bring the worst institutions up to the level of the best?" These questions need to be asked, to be sure; but one must also realize that the best may not be good enough and may, in any case, already be changing.

Charles Silberman, Crisis in the Classroom, 1970, p. 4

Introduction

The problems with higher education, as we see it, is that many of our students seem to be slipping through their years at the university untouched by their coursework. We observe ourselves and our colleagues lecturing and grading; we observe our students responding in a variety of what we believe are non-learning orientations. What concerns us the most is that both groups, students and professors, seem to be colluding to ignore the question "is anybody learning anything?"

These impressions are supported by studies of student behavior in the college classroom. Through the use of interviews, questionnaires, and observations of classroom behavior, Ringwald et. al. (1971) identified eight distinct types of student characteristics. Descriptions of the students in each type are presented in Table 1.

At best we might say that the students in types 3, 4, and 5, a mere 24%, are involved in intellectual quest. The others seem to be more involved in pleasing the instructor, in gaining social acceptance, in striking out at the instructor, or they are not involved at all.

TABLE 1

TYPES OF STUDENT BEHAVIOUR AND ATTITUDES

Type	Number of Students	Characteristics
1. Compliant	12 (5 men; 7 women)	Trusting of authorities; willing to go along with what teacher wants; focus on understanding material rather than criticizing it or formulating own ideas.
2. Anxious-dependent	28 (12 men; 16 women)	Very dependent on what authorities think of them; doubtful of own intellectural competence; anxious about exams and grades.
3. Discouraged workers	4 (3 men; 1 woman)	Intelligent; hardworking; intellectually involved; chronically depressed; personally distant.

4. Independent students	12 (9 men; 3 women)	Self-confident; interested; involved; identify with teacher; see teacher as colleague; older than average.
5. Heroes	10 (10 men; no women)	Intelligent; creative; involved; resentful of authorities; ambivalent toward teacher; erractic in performance.
6. Snipers	10 (7 men; 3 women)	Rebellious; defensive; less creative than students in Type 5; uninvolved and indifferent toward class; stress fact they were required in some way to take the course.
7. Attention-seekers	11 (5 men; 6 women)	Social, rather than intellectual, orientation; want to be liked and get good grades.
8. Silent students	20 (8 men; 12 women)	Speak in class only when sure teacher will approve; feel helpless and vulnerable in relation to teacher.

From Ringwald, Mann, Rosewein, and McKeachie (1971, p. 47).

Preliminary results (Appendix A) from a study of student attitudes and behaviors done by the present authors at the University of Alberta indicate that while many students claim that learning is their primary goal, there seems to be little learning going on. As examples, few indicate interest in their subjects, few claim they work to their capacity, many admit they are bored by lectures, few claim to remember the subject matter after the exam, many admit to following the "cram" pattern of study, few have confidence that their courses are relevant or that exams are good indicators of learning. While admitting this, most indicate that it is important to tell the professor what he wants to hear and to show interest in the course. Few indicate that they would act or that they perceive channels through which they would act to change the situation. Most place the responsibility for structuring the learning situation on the professor.

We do not claim to be the first to notice these problems or the first to wish to do something about them. Over the last four decades, there has been a massive amount of research concerned with the impact of various pedagocial styles on learning. Having conducted an examination of this research, Dubin and Taveggia (1968) have concluded: "These data demonstrate clearly and unequivocally that there is no measurable difference among truly distinctive methods of college instruction when evaluated by student performance on final examinations".

It is our wish to continue this line of investigation, hopefully with more success than previous investigators. In the following pages, we describe an approach which we have developed to meet the goal of involving a significantly higher number of students in the learning quest. In section one, we briefly explore elements of the learning situation which we consider to be important and have included in our proposed program. In section two, we integrate these ideas to build a program which we believe will re-engage many students in the learning quest and which we propose to implement in the school year beginning September, 1972. In section three, we expand variables. We first explore the process through which negative attitudes about the learning situation have developed. Then we explore the factors which operate in the educational system to reinforce those negative attitudes and the means through which they can be changed. In section four, we describe a methodology which attempts to measure the impact of this program on student attitudes and behavior.

I. An Explanation of Factors Which Promote Motivated Learning

Although there has been a good deal of research activity in higher education, it is our impression that most has focused on what we will define as structural variables, as examples, the efficacy of lecture versus seminar, of large versus small class size. We have pointed out above that a massive review of this literature has demonstrated that there are no differences between the different structures as determined by their impact on performance on final examinations.

It is our belief that such research, in dealing mainly with structural variables, has overlooked a number of other variables important to the learning process, namely, student attitudes, choice, instrumentation, relevancy, feedback, fonfluency, and identification. Each of these will be discussed in turn.

(1) Attitudes

It is our belief that the attitudes which students hold about learning are of primary importance in determining whether learning will or will not take place. Attitudes about learning are developed over a long period of time and are relatively stable. We believe that they are little affected by short-run structural changes which impinge on the student late in his educational career.

In appendix A, we present preliminary data that the attitudes students hold about learning are mostly negative and that the behaviors they practice in the learning situation are not conducive to learning.

In section III of this paper, we explore the processes through which negative attitudes about learning may have developed and suggest that attitude change as well as structural change is necessary if changes in learning behaviors are to occur.

If our hypothesis is valid, that structural change must be accompanied by attitude change, then we have provided an explanation for the failure of structural interventions to make an impact on learning.

As a demonstration of this hypothesis that attitudes mediate against the learning impact of structural variables, consider again the various behavioral responses of students in the Ringwald et. al. study. The compliant student (type 1) is characterized as trusting of authorities, as willing to go along with what the teacher wants, and as focused on understanding material rather than criticizing it or formulating his own ideas.

We are suggesting, first, that the complaint students' behaviors are reflective of his attitudes (e.g., throughout his educational experience, he has been positively reinforced for following the lead of the classroom authority) and, second, that short-run structural changes are not going to affect these attitudes to any great degree. He will be trusing, willing to go along, and uncritical whether he is in a large or small class, in lecture or seminar format. (We acknowledge that a seminar format, an example, may have characteristics leading to changes in these behaviors, but stress that for one class of several over the short-run change is not likely). The same argument may be advanced for each of the student types.

Thus, it is our belief that attitude change must accompany structural change if changes in learning behavior are to occur. The proposed program has as one of its main design features the elimination of factors which have led to the development of attitudes which mediate against learning and the development of attitudes which mediate aginst learning and the development of mechanisms which allow for the changing of these attitudes.

(2) Choice

In section III, we argue through a dissonance theory approach that the forced nature of the educational process has created many of the dysfunctional learning orientations that students hold. If our theoretical analysis is correct, then my program which attempts to encourage the student to enter in the quest for education must remove the elements of force. We believe it is desirable as well as important that the student choose freely his learning goals from as complete an understanding of the educational process as possible.

(3) Instrumentation

It is our view that other educational innovations which have simply turned course and grading control over to the students have failed because they fail to prepare the student adequately for the new learning environment.
The students in such a circumstance are being given the free choice to participate in the educational experience and the opporturnity for involvement in the design of their learning experience, both important components of the present proposal, but they are also being asked to do a variety of other complex and difficult tasks, specifically:

i) To deal with the emotional shock of moving into a system of learning completely unlike their prior experience.
ii) To build and maintain a complex learning organization composed of members with a variety of needs and attitudes.
iii) To accomplish a learning task (e.g., the curriculum)
iv) To move through behavioral as well as attitudinal changes.

> We would argue that the abilities to accomplish tasks one through three are probably most characteristic of the student of Type 4 in the Ringwald study and thus the students of other types are forced either to change their attitudes and behaviors quickly or to fail.

It is our belief that a quick changeover in structure without proper preparation asks the student to do too much in too many areas, all at once. We are not surprised to hear that some of these programs have ended in confusion, frustration, and an unwillingness on the part of the participants to continue.

It is our hypothesis that a program can be developed which allows the learner to approach these tasks in successive approximations. Thus, the program to be described has several phases, the first of which includes training experiences oriented to preparing the student for the major changeover which occurs in the second phase.

(4) Relevancy

Situational relevancy of the material to be learned is a variable not dealt with in the research reviewed. It is the belief of the present authors that the learning process is enhanced if the skills and knowledge to be learned are acquired in situations like those in which they are to be used. For a discussion of situationally relevant learning the reader is referred to Watson (1961).

One author of the present proposal has developed a paper on the application of the concept of situational relevancy to the teaching of organization behavior (Miles, et. al., 1970). In this approach, large scale organizations are simulated through a variety of techniques, and the students members are asked to validate course constructs in the situation which they are experiencing directly. This approach is similar to that of the physical sciences where students are regularly required to move from the classroom to the laboratory so that they may validate course constructs through controlled experiments. A part of the proposed program is the development of situationally relevant learning for as many of the subject areas as possible.

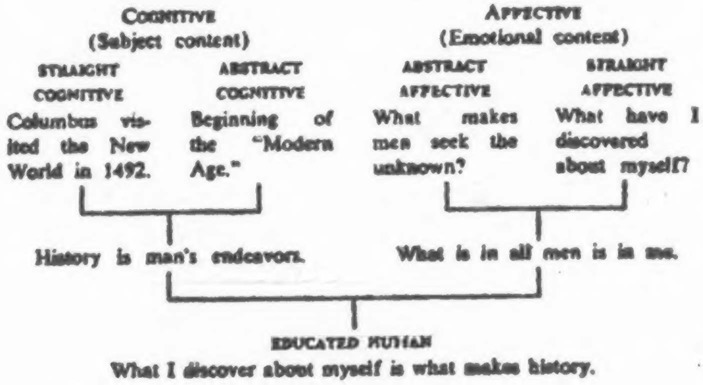
(5) Feedback

An observation of present classroom practice is that little is done to promote the development of feedback about the learning process. We emphasize that feedback is useful to the designer of the course as well as to the learner. Feedback which is evaluative or "grade-oriented" tends to surpress other kinds of vital information (eg., direct statements as to whether the student feels he is understanding the material often comes too late to allow for changes in the learning design. A part of the proposed program will be a set of developmental activities promoting the open flow of informational feedback between program designers and program participants.

(6) Confluency

Confluent education is the term for the integration or flowing together of the affective and cognitive elements in individual and group learning.

As an example of how the cognitive and affective dimensions can be related, the diagram below demonstrates one way in which the approach of confluent education can be applied to the study of Columbus's discovery of America. (Taken from Brown, 1971)



COGNITIVE
(Subject content)
AFFECTIVE
(Emotional content)
STRAIGHT COGNITIVE
ABSTRACT COGNITIVE
ABSTRACT AFFECTIVE
STRAIGHT AFFECTIVE
Columbus visited the New World in 1492.
Beginning of the "Modern Age."
What makes men seek the unknown?
What have I discovered about myself?
History is man's endeavors.
What is in all men is in me.
EDUCATED HUMAN
What I discover about myself is what makes history.

It is the hypothesis of Brown and his colleagues "that such an integration of cognitive and affective elements will lead to the personal involvement of the learner and, as a consequence, there will be a change in the learners behavior".

While there is a lack of concrete evidence at this time as to the efficacy of a confluent approach, Brown and his associates have presented anecdotal evidences of success in their reports to the Ford Foundation on Confluent Education.

In addition to the argument presented by Brown, it is the belief of the present authors that this approach will bring about a number of important things, namely, a tendency to reduce the role barriers between professor and student, the enhancement of the learning experience in that the students are able to move beyond emotional learning blocks, and the improvement of the motivational situation in that the material becomes more interesting and thus motivation to participate is increased.

(7) Identification

The typical college professor plays a role which is experienced by the student as distant and lacking warmth. There is little social interchange in the classroom and social interaction out of the classroom is nearly taboo. Accompanying this, students have described themselves as different than their professors in an attitude questionnaire administered by the authors.

The work of Bandura and his associates demonstrates that many components of the child's behavioral repertoire, including the acquisition of incidental behavior, are assimilated or absorved by means of observational learning and imitation. (Mussen, 1967) Demonstrating the relationship between a warm role model and the degree of identification, Mussen has shown that boys who were more highly identified with their fathers had warmer and more easy going relationships with them.

It is our expectation that the students will more likely identify with the teaching staff in the proposed program since the staff will be expressing feelings openly and social interaction will be increased. Thus, we expect the students to assume the staff values more readily than in other circumstances, e.g., the value that learning is interesting and fulfilling. In addition, the staff members plan to deliberately act as models in the learning situation. When one of the staff is working with the students at least one other will act as a learner (and in most cases will be a learner in that the staff is an interdisciplinary group) and will model feedback and active learning roles.

II. THE PROPOSED PROGRAM

The program will be a special, one-year program for second year Faculty of Business Administration and Commerce students. An inter-disciplinary group of professors, representing such diverse business fields as accounting, economics, quantitative methods, and behavioral science, will be responsible for all but one of the second year courses of these students. There will be approximately 60 students (25-35% of the second year student population) in the program.

In its present planning stage, the program consists of two stages, possibly with some overlap between the two. One major focus of the first stage is the provision for the transition to the second stage. Another important focus is the provision of mechanisms to instigate change of the anti-learning attitudes which we believe have carried over from prior experiences.

The second stage is characterised mainly by the fact that it is the release point, the time when the problems of developing a learning community are turned over to the students with the professors serving as member-consultants. It is also the time in which factors are eliminated which, according to our analysis, have led to the anti-learning attitudes on the part of the students. Each of these stages is described in detail below. Refer to figure one for an outline of these points.

THE FIRST STAGE

The major purposes of the first stage are to provide for the transition to the second stage and to provide mechanisms through which anti-learning attitudes can be changed.

We have argued that the transition to a new environment can be made easier by successively approximating the conditions that will prevail in the new environment. The first stage consits of several approximating steps.

The first will be to provide a cognitive structure about human behavior and learning which will provide the student with a framework with which he can understand his experience.

The second will be to develop organization skills such as team building which will be useful in tho second stage when the students are faced with the task of building their own learning organization.

The third will be a series of simulations which will approximate the final situation in important aspects. For example, the emotional impact of change can be simulated by turning class control over to the students for a short time early in the first stage. Similarly, team simulations and negotiation simulations can be conducted to demonstrate and build kinds of skills needed in the second stage.

The fourth will be the development of a feedback system which should carry over to the second phase. Both interpersonal communication skills and generalized data-gathering and analyzing skills will be taught.

In addition to providing for the transition to the second stage, the first stage will include mechanisms through which anti-learning attitudes can be changed. These mechanisms consist first of a series of activities designed to surface attitudes about learning and school and second the building of an environment in which the student, if he so chooses, can change his attitudes and behaviors.

The surfacing techniques will include activities such as evaluating student behavior utilizing the McKeachie Typeology, responding directly to the student attitude questionnaire developed by the authors and analyzing of interpreting the data. The underlying assumption of such activities is that through analyzing the system of education at the university and observing and analyzing the meaning of student behavior, the student will become aware of some of the attitudes they hold about the learning situation and thus be able to choose whether to retain or change these attitudes.

The environment in which students can practice changed behaviors will occur in both stages I and II. The essential aspects of an environment

GRA SIG

FIRST STAGE		SECOND STAGE	
PRINCIPLE	IMPLEMENTATION	PRINCIPLE	IMPLEMENTATION
1. Attitudes mediate against learning	- Surfacing of attitudes - Supportive environment for attitude change	1. Choice leads to higher commitment to learning	- Pass/fail - Work level choices - Program design
2. Instrumentation	- 2 stages, the first a preparation for the second - Simulation exercises - Organization development skill building - Cognitive structure for understanding problems of change	2. Situational Relevancy	- experiential - problem oriented - confluent
3. Feedback	- Discussion groups - Data collection & data analysis skill building - communication skill bldg. - Role barrier reduction - t-group	3. Instrumentation	- practice re-entry into 1 outside course while still in program - utilization of professors who are not a part of the community to give lectures & interact with student/professor community members
4. Confluency	- curriculum made confluent - feedback system encourages open expression of feelings	4. Feedback	- utilization of skills learned in Stage I
5. Identification/Role Modeling	- role barrier reduction between professors & students - professors model active learner - professors model feedback	5. Identification/Role Modeling	- continuation of modeling and of interaction with students by professors

FIGURE 1

Program Design: Learning Principles and Their Implementation conducive to practicing changed behaviors are the removal of agents which reinforce old behaviors (e.g.'s, the evaluative aspects of the learning situation will diminish in that there will be increased freedom of choice in the level of intensity of pursuing the subject matter and increased involvement in choosing the learning design; peer reinforcement of negative attitudes will probably be diminished with the breaking of role barriers between professors and students and with the opening of channels of communication, especially in the affective area) and the inclusion of agents which reinforce changes and experimentation (as an example, through identification with professors and imitation of modeled behaviors).

THE SECOND STAGE

At some point in the program, the decision will be made to shift from the first to the second stage. This will occur when it is felt that the objectives of the first stage have been reasonably met.

The design of the second stage is based on the objective of removing factors, which according to our analysis, have led to anti-learning attitudes on the part of the students and on two learning premises: (1) that situationally relevant learning situations maximize the motivation to learn and enhance; and (2) that confluent situations (the merging of rational and emotional aspects of learning) minimize blocks to learning and maximize motivation.

In addition, the second stage is characterized by the carry over of processes that were begun in the first stage, namely: a variety of feedback mechanisms, and the utilization of skills acquired in the first stage, continuation of role modelling by the participant professors, and the continuation of the instrumentation, with an emphasis on preparing the student for participation in the normal program, third year.

The principal factor which is removed in the second stage of the program is the element of force. We have explained our key hypothesis that the forced nature of school has led students to hold negative attitudes toward school and learning and that only by removing the force can we expect the student to devote major portions of his energies to the educational process. Thelen has further elaborated this point:

> The schools "socialize" children, shaping them into the role of organization man and student. But the schools do not "educate" children because the process of education is a quest, voluntarily entered into, after meaning, and there is nothing voluntary about participation in most classrooms. (Thelen,).

This distinction between the student socialized to endure school and the student who chooses to be involved in an educational experience is essential to the understanding of our proposed program. The element of force will be removed as much as possible by allowing the students to select their areas of study, the amount of time to be devoted to learning, and the method of learning. We also plan to offer pass-fail grade options.

It would be naive, however, to assume that the element of external force can be entirely removed. Our students will still feel external pressures to get their degree. In addition, since they must re-enter the normal curriculum at the end of our prgram, they will feel forced to master enought of the course material necessary for them to succeed in later courses. We cannot remove these elements of force, but we can lessen the degree and remove those elements that relate to the manner in which this material is mastered and to the degree of involvement demanded of the student.

Situational relevancy will be developed through problem-orientations, simulations, and experiential learning.

The problem-orientation of the second stage will come from the fact that the students are faced with two tasks if they choose to continue to learn in the program. The first is the problem of building and maintaining a learning community and the second is the problem of reentering the normal business curriculum in the third year. This problem focus will make thinking and problem-solving skills relevant and will provide an organization (the experience of the learning community itself) in which such skills can be practised directly.

In addition the organization experience will provide an environment in whcih some of the tools and skills being offered by the member-professors can be utilized and tested directly. It is our expectation that experiential learning, the opportunity to directly apply the concepts taught in the business school, will increase the relevance of these concepts, and thereby promote more highly motivated learning and better conceptualization of these tools. A series of seminars for the participating professors will be designed to enable them to develop an experiential base for their respective disciplines.

The second problem occurring in the second stage is the problem of re-entry. It is ourbelief that students who have experienced an environment more conducive to the learning process, at some point in their career, will enter an organization which resembles the traditional educational system and which will tend to re-change new behaviors back to the old. Thus, we believe it is important to pose the re-entry problem and have designed the outside course to be taken during the second term of the school year. (also during the second stage) for a practice re-entry. This will offer the opportunity, if the student community so wishes, to design and test a program for re-entry to the normal organization. Hopefully, more effective coping styles can be chosen and practiced by the students at this point.

Student Safeguards and Research Activities

The authors are faced with the usual dilemma in wishing to do meaningful research which will ultimately lead to better learning environments for future studens and wishing to provide the best learning environment possible at this time for present students. A carefully controlled research design calls for variation of one factor at a time and the random selection of students for experimental and control conditions.

On the first point, we have yielded to the present students and have designed a program which we believe has a chance of surpassing that which presently exists. In doing so, we will not be able if successful, to determine which of the many factor's have led to success.

On the later point, we wish to include a random cross-section of all types of students. Obviously an all-volunteer group seriously impairs the researcher's ability to generalize. Further, we are specifically interested in whether our design will work better for all types of students and not just those who self-select.

On this point we have also yielded somewhat to the rights of present students. We believe that students have the right to pursue a "normal" educational path if they so choose. We believe this even though we are convinced that our program will ultimately prove superior to the "normal" ones.

We therefore plan to draw a random sample of students, approximately twice the size of our needs. We intend to offer these students a 50-50 chance to participate in our program once we have described it to them. It is our expectation that a large percentage of those drawn will volunteer to participate. Of those who volunteer, we will then select the number we need in the program and utilize the others as controls. Since the chance to participate will come long before the program begins, we expect that any dissonance on the part of volunteers who were not choosen will dissapate and that the "volunteer" control group will be legitimate. In addition, we will randomly select a second control group of students who were not offered a choice to participate.

In addition to not wishing to force students into the program, we do not wish to force students to remain in the program. The student who chooses to drop out of the program will be free to do so. Because of the difficulties such students might face going back into the regular program, the instructors in the program guarantee that such students will be tutored individually to whatever extent is necessary to allow them to return to the regular program. We would like to point out that such individual attention is more than what students enrolled in the regular program customarily receive when they encounter difficulties.

III. A Dissonance Theory Approach to Understanding the Development of Negative Attitudes about Learning: Implications for Curriculum Program Design

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R.V. Rasmussen Ph.D

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(Rough draft available upon request).

IV. Developmental Notes on a Methodology for Assessing the Porposed Program

Because the scope of our program is so wide, the ways of assessing it are also wide. In addition, there are two somewhat separate questions to be dealt with. One is the question of "What happens to students in the program?" , the other is "What happens to students after they return to the normal program?" Following are some of our ideas on ways in which these questions might be answered.

What happens in the program?

Variables in the program. As mentioned in the description of the program, both faculty consultants and students will be reporting observed behaviors, problems and so on as part of the feedback process. This data will provide us with the basis for creating an overall diary of what happened in the program, which will enable us to answer such questions as "At what point did students begin to move from a passive to active role in structuring the community", and "At what point did students begin to model their behavior after that of the faculty consultants?"

Learning methods adopted. How will our students structure their learning experiences? Will they choose mainly lectures, mainly seminars, or both? Will they prefer group projects or individual work? Will they choose to cover all courses at one time (i.e., in the same manner as the usual curriculum or sequentially? This data will be of obvious interest.

Material learned. Apart from the question of how our students learn, what do they learn? We propose to test the students' knowledge of the second year material through the use of exams similar or identical to those given to students in the regular second year program. However, we wish to point out that scores on these exams will not necessarily be used for purposes of assigning grades unless the students themselves so choose.

The community as a whole will be responsible for devising methods of assessing student performance. One such method may be exams set by faculty consultants, or by faculty members outside the program. Whether or not exams are used for purposes of assigning grades, we intend to collect this information for our own assessment of the program.

Attitudinal changes. One of the major aspects of our program is attitudinal change. We intend to assess this through a variety of measures. One will be a scale which we propose to develop on attitudes towards learning, professors, school and so on. In addition, we would like to collect information on students' attitudes towards themselves and other people, their authoritarian beliefs, their creativity, and so on. Such measures will be collected at the beginning and end of the program, and perhaps at the point when the change from stage one to stage two is being made.

Measures taken during and immediately after the program, however, are not sufficient for us to assess the program. One reason for this is the Hawthorne effect, and another is that we are also interested in the long range effects of such a program. Therefore we also intend to collect data on what happens to our students after they return to the regular program in third and fourth year.

What happens after the program?

Grades. Because of their involvement with the learning process, will our students earn higher grades? Or will they be less concerned with grades, and focus on learning for the sake of learning as long as they maintain average grades?

Attempts to restructure third and fourth year courses. Once students are accustomed to taking responsibility for their own learning experiences, how will they respond to courses in the normal program. If they are unhappy with the format in a given course, how will they attempt to change it? Will they attempt to change it? We intend to collect data from third and fourth year instructors as to students' actions and behaviours in the class, use of office hours, attempts to create changes in the structure of courses and so on.

Extracurricular activities. It may be that our students will seek to structure their own experiences not so much through the classroom, but through extracurricular activities. We therefore intend to collect data on the organizations they join, the extent to which they become involved in university administration (e.g. GFC) and the executive positions they attain in these campus organizations.

Attitudinal variables. We would like to collect data on the attitudinal variables which are measured during the program after the students have returned to the regular program, in order to assess the extent to which the attitudinal change is long-lasting.

Personal data. Ideally, we would like to follow our students into the jobs they hold after graduation. However, this may not be feasible. We would like to get information on the types of jobs they take, the salary at which they start, and the number of offers which they receive.

Control Group

In order to best assess the effects of the program, we wish to compare our students with a control group of students who go through the regular second year of the program. These students will be selected at the time our original sample of students is chosen. The control students will be compared with the program students with regard to second year material learned, attitudinal changes, grades, attempts to restructure third and fourth year courses, extracurricular activities, and personal data.

Notes on methodology:

I. Independent Variables:

Proposed System vs	Normal System
1. Less force	1. more force
2. Experiential Emphasis	2. no Experiential emphasis
3. Less Cognitive Learning	3. Mostly cognitive learning
4. Free Learning Structure	4. Highly structured classes
5. Interdisciplinary where possible	5. Single discipline
6. Emotions integrated into learning	6. Rational, Abstract approach; distant interpersonal relationships
7. High amount of feedback, interaction; feedback highly reliable	7. Low feedback, feedback unreliable; low interaction
8. Exercises designed to provide insights into educational system and students' attitudes and behaviors	8. No introspective matter.
9. More student interaction closeness	9. Less student interaction, closeness.

II. Dependent Variables:

1. Changed attitudes toward learning, self, authority figures, peers.
2. Greater range of coping behaviors with respect to regular educational programs.
3. Greater ability to cope with unstructured situations
4. Greater ability to learn independently;
5. Greater ability to work with peers.
6. Better learning of second year subject matter
7. Better ability to think, integrate, perform on thinking exam
8. Better ability to cope with power-shared relationships

Methodological Problems:

1. Hawthorne Effect:

All data taken while in the program itself will be dubious because evidence demonstrates that participants may be anxious to please the researchers because of the special attentions given them. Therefore, data in third, fourth, and after years will be more reliable. Especially if taken unobtrusively.

2. Halo Effect:

Since the professor participants are self-selected on the basis of interest (non-random), it can be argued that only a certain type of professor can make this kind of program work. This effect can be argued against in part by examining the present behavior or simultaneous behavior of the professors in the program to see whether they cause different effects which could be attributed to personality characteristics or charisma.

Therefore, generalization of the results will be limited to a self-selected population of professors.

3. Multiple Effect Flaw:

While the program design approach allows us to give the students a program which we think is superior to the normal-traditional program, the data will not be able to reveal which of the variables has had the greatest effect.

Therefore, the data will not be generalizable in the sense that we can say which of the variations are the true causes of the changes observed. Nor will it be possible to say whether any of the variations are positive in effect.

4. Uncontrolled Variables:

It may be that variables other than the Attitudinal, Structural variables being dealt with are responsible for the outcomes. Some of these, e.g. program content, can be accounted for in advance, while others must be assumed to distribute themselves randomly by a random-population selection process.

Therefore, subject matter must be the same for both programs. Also a random-selection process must be used for schooling participants in order to account for personality/value differences.

5. The Student Sample is Biased

Although a random sample will be used, the students are already self-sorted in that they have choosen the faculty of Business Administration.

Therefore, the results will only be generalizable for students in the faculty of Business Administration at the University of Alberta.

6. Attitudinal versus Behavioral Measures

Attitude measurement may always be affected by the participants listing what they "should" reply rather than what they perceive in a phenomenological sense.

Also, program participants may have better self-insights than non-participants producing a systematic error in the differences being measured.

Therefore, the differences between Cs and Es may be due to this factor rather than the program itself.

Therefore, behavioral measures are preferred whereever possible.

7. Control Groups and the Random Selection of Participants

Program participants must be selected randomly because one can expect wide variations in personality types in the student population and the question being asked is "will the proposed program be better for all types of students". Ringwald's study is evidence that the program can expect a wide variety of participant personality types. If, on the other hand, participants are self-selected, one can expect that those to whom the program appeals, e.g., the more self-sufficient, will select themselves in greater proportions, and thereby affect the generalization of the results which are more likely to be positive.

On the other hand, because student interests must be respected, there must be a method of dropping out of the proposed program. In order to account for the sampling error this will impose on the program, these students who have opted out will have to be included in the data as if they had participated in the proposed program. Needless to say, drop-outs will have a serious effect on the significance of the data, since it can be expected that they will not change any of their behaviors without exposure to a program such as ours.

Therefore, participants will be selected randomly with the expectatio that some will drop out of the program.

8. Instructor Time Inputs

A serious error results if the participant instructors put in a great deal more time per student than those instructors who teach in the regular program. The design possibilities are two: a. to not control time inputs and to lose generality of results, since one could say that the normal program would have better results if the professors would put more time in, or b. to control time inputs which doesn't allow for the emergency time inputs which can be expected in moving to any new type of program.

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APPENDIX A

STUDENT ATTITUDES ABOUT AND PERCEPTIONS OF THE UNIVERSITY SYSTEM

PRELIMINARY DATA FROM A QUESTIONNAIRE STUDY

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Student Attitudes About and Perceptions of the University System

The following report is taken from a questionnaire study conducted at the University of Alberta. At this point in time, the study is limited to undergraduate students in the faculty of Business Administration. Members of all four years have been randomly sampled and return rates average 26% for the total study (46 returns of 129 questionnairess picked up from student files).

The questionnaire is actually the first step in a larger project, an attempt to develop an instrument which measures attitude change resulting from participation in the Experimental Program. However, since the premises upon which the Experimental Program is based (e.g., that students are bored, apathetic, dependent) have been questioned, it seemed appropriate to present some of the preliminary findings.

Brief Points about the Methodology

The questionnaire is a Likert-design with six response possibilities of Strongly agree, Moderately agree, Slightly agree, Slightly disagree, Moderately disagree, and Strongly disagree. The items were randomly ordered. Fifty percent of the items were randomly selected and worked negative to the hypothesis (the hypothesis being that students are dependent, bored, turned-off, etc). Two questionnaires were then developed, the second a mirror of the first, that is, the negative-to-the-hypothesis statements on the first were reversed on the second and made positive-to-the hypothesis.

Other safeguards against contamination of results were also taken. Students who had been enrolled in any of Dr. Rasmussen's classes were surveyed separately and their data are not included in this report.

In addition, twenty randomly selected students were asked to judge the questionnaire in terms of its bias toward the school system. In responding to the question "this questionnaire is critical of the present educational system" (or its negative), the data indicate that respondants do not perceive any bias on the part of the researcher.

The results

The data presented and interpreted in part below represent scales selected by the author which are judged to be of interest to the faculty. Only scales which obtained properly reversed responses (e.g. if students disagreed with a positive-to-the-hypothesis statement then they must have agreed with its negative-to-the-hypothesis counterpart) are included in the report. This eliminates the possibility that there was a bias intrinsic to any item included in the results.

I. A meaningful question to ask students is whether learning is important to them. The answer for many seems to be "yes", although a surprising number suggest that they are neither interested in learning nor in their subjects. (Remember that there are probably strong moral imperatives dictating a positive response.

A. When asked whether "Learning is as important as getting the degree"

36%	Strongly Agree	(StA)			
32%	Moderately Agree	(MA)	68%		
11%	Slightly Agree	(SlA)		79%	Agree (A)
4%	Slightly Disagree	(SlD)	15%		
7%	Moderately Disagree	(MD)		22%	Disagree (D)
11%	Strongly Disagree	(StD)	18%		

B. When asked whether "Students are interested in their subjects"

3%	StA		
10%	MA	13%	
31%	SlA		A 44%
24%	SlD	55%	
31%	MD		D 55%
0%	StD	31%	

II. Given that learning is important to many students, how well are they doing with the learning task? Several scales reveal the answer: NOT WELL!

A. Referring to item I.B., note that only

13% express moderate to strong agreement, whereas
31% express moderate to strong disagreement with the statement.

B. When asked whether "students work to their full capacity", the overwhelming response is NO.

0%	StA		
11%	MA	11%	
7%	SlA		A 18%
25%	SlD	32%	
50%	MD		D 82%
7%	StD	57%	

C. When asked whether "students study the required amount of time"

4%	StA		
15%	MA	19%	
7%	SlA		A 26%
19%	SlD	26%	
40%	MD		D 74%
15%	StD	55%	

Clearly, a large portion of the students work neither to their full capacity nor invest the required (their own estimate) amount of time in the learning task.

D. When asked whether "Students are bored by lectures"

18%	StA		
29%	MA	47%	
25%	SlA		A 72%
14%	SlD	39%	
14%	MD		
0%	StD	14%	D 28%

E. When asked whether "Students remember what they have learned after the exam"

4%	StA		
18%	MA	22%	
18%	SlA		A 40%
11%	SlD	29%	
32%	MD		
18%	StD	50%	D 61%

One can conclude from these responses that many students do not find their subjects (as taught) interesting, that many are not working even to the capacity they feel is required, that many are bored by the standard classroom format, and that few are retaining much of what they have learned.

III. Why is there so little remembered (refer back to item II.E)? Certainly boredom and lack of interest can account for much of the answer, but the study pattern practiced by students is also revealing:

A. When asked whether "the study pattern practiced by students is to study little between exams and to cram just before the exam"

18%	StA		
46%	MA	64%	
11%	SlA		A 75%
11%	SlD	22%	
7%	MD		D 25%
7%	StD	14%	

Few students, then, practice the learning patterns which learning theory and research predicts will yield the greatest dividends: To make consistent efforts in moving towards a learning goal.

This study pattern may be caused by the fact that university teachers reward (and thus emphasize) the final product (the exam, and the grade) and do little to reward study patterns (e.g., the intermediate steps leading to the final product).

Perceived usefulness or relevancy of the materials to be learned must also be a determinant of motivation and learning effectiveness. The data indicates that many of our students are not strongly convinced of the usefulness of their academic pursuits.

B. When asked whether "the things students learn in the university will be useful in the future",

11%	StA		
25%	MA	36%	
32%	SlA		A 68%
4%	SlD	36%	
21%	MD		D 32%
7%	StD	28%	

Finally, learning theory predicts that rewards must be consistent with efforts in order for desired behaviors to be maintained. Do students feel that grades reflect their efforts? The answer seems to be a strong NO!

C. When asked whether "exams are good indicators of what a student has learned in the course"

0%	StA		
0%	MA	0%	
8%	SlA		A 8%
30%	SlD	38%	
33%	MD		D 93%
30%	StD	63%	

D. When asked whether "Students feel that grades reflect their efforts in class"

11%	StA		
14%	MA	25%	
14%	SlA		A 39%
21%	SlD	35%	
36%	MD		D 61%
4%	StD	40%	

One could argue that receiving "bad grades" will lead to a tendency to label grades as poor indicators, but note that *No* students even moderately agree with the first statement and only 25% with the second. Do we have that many receiving poor grades? (The survey does include grade data and at a later point the interaction of grades and perceived efficacy of grading will be checked more directly.)

IV. Given this somewhat gloomy picture, why do some professors believe that most students are active and interested in their courses? The answer comes from several other scales.

Students emphasize a need to show interest in their courses and are anxious to tell the professor what he wants to hear.

A. When asked whether "Students feel that the best way to succeed is to tell the professor what he wants to hear"

28%	StA		
38%	MA	66%	
24%	SlA		A 90%
7%	SlD	31%	
4%	MD		D 11%
0%	StD	4%	

B. When asked whether "it is important for a student to show the professor that he is interested in the course"

0%	StA		
59%	MA	59%	
33%	SlA		A 92%
4%	SlD	37%	
4%	MD		D 8%
0%	StD	4%	

Remember that the responses above reflecting boredom and lack of interest in subjects are somewhat contrary to the statement in IV.B., showing the professor that the student is interested. This is a strong indication that students are actually pretending to be interested in the course even when they are not. Perhaps they also perceive that the professor wants to hear them say that they find his field stimulating.

Part of the answer to the question posed above also comes in the communication process between students and professors. To a large degree it doesn't exist.

C. When asked whether "students have difficulty in communicating with their professors"

18%	StA		
29%	MA	47%	
25%	SlA		A 72%
14%	SlD	39%	
14%	MD		D 28%
0%	StD	14%	

Is it possible that professors interpret lack of communication as tacit consent to their teaching methods.

V. What will students do to correct this situation? Probably nothing.

A. When asked whether "if a class is dull and boring, a student will take positive action to change the situation"

0%	StA		
11%	MA	11%	
7%	SlA		A 18%
18%	SlD	25%	
43%	MD		D 82%
21%	StD	64%	

Of the few who respond strongly to this statement (11%), perhaps they are the successful students who have nothing to change and nothing to complain about? Further analysis will deal with this possibility.

VI. We can conclude from items IV.C. and V.A. that communication links vital to the learning process do not exist. Why not? And we must ask, why won't the student take action?

The answers seem to stem from a fear of repercussions and a perception that legitimate and safe channels do not exist for such actions.

A. When asked whether "if a student reported a professor who was doing a bad job, he would not want to be identified as the informant"

39%	StA		
29%	MA	68%	
21%	SlA		A 89%
11%	SlD	32%	
0%	MD		D 11%
0%	StD	0%	

B. When asked whether "there are real channels for students who have legitimate complaints about courses and professors"

0%	StA		
21%	MA	21%	
25%	SlA		A 46%
14%	SlD	39%	
18%	MD		D 53%
21%	StD	39%	

And, to be speculative about the data, the real reason for inaction on the part of the student might be the attitude that the blame and responsibility is external to himself.

C. When asked whether "if the course is boring or badly structured,its the professor who is at fault"

7%	StA		
46%	MA	53%	
25%	SlA		A 78%
14%	SlD	39%	
7%	MD		D 21%
0%	StD	7%	

Reflecting on items VI. A. and B., if a student perceives he has no power or that it is dangerous to exercise power, perhaps he is wise to externalize the blame.

VII. In an early statement on the experimental program, it was stated that students might lie to or manipulate their professors and that cheating might be prevalent. Scales IV.A and B already indicate some willingness to manipulate and the scales reported below support this hypothesis. However, the data is not supportive of the cheating hypothesis and more work needs to be done in this area.

A. When asked whether "students would make up an excuse if they missed an important assignment due to a drinking party"

21%	StA		
46%	MA	67%	
21%	SlA		A 88%
4%	SlD	25%	
7%	MD		D 11%
0%	StD	7%	

B. When asked whether "In a boring course, it is wrong to hand in a paper which was written by someone else"

46%	StA		
25%	MA	71%	
14%	SlA		A 85%
4%	SlD	18%	
4%	MD		D 15%
7%	StD	11%	

C. When asked whether "students who are caught cheating should be punished"

50%	StA		
21%	MA	71%	
7%	SlA		A 78%
11%	SlD	18%	
7%	MD		D 22%
4%	StD	11%	

As was pointed out above, the manipulation hypothesis is supported by the data whereas the cheating hypothesis is not. However, the moral overtones of the latter two statements are so strong that it is surprising to find as many as 15 and 22 percent openly going against these moral norms, and another 10 percent not very strong in their support for these statements. In addition, wanting others not to cheat is a way of safeguarding one's own interests and the responses may be part of a situational ethics: "I am afraid to cheat, and the way to maintain my position is to see that others are punished".

VII. Given the above picture, do students want to stay around the university? The answer is not surprising: NO THEY DON'T!

A. When asked whether "students want to get out of the university as soon as possible"

17%	StA		
42%	MA	59%	
17%	SlA		A 76%
10%	SlD	27%	
13%	MD		D 23%
0%	StD	13%	

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5.5.71.

PROPOSAL FOR A STUDY OF STUDENT ATTITUDES TOWARDS UNIVERSITY LIFE

Andre Gareau

The Progress Report, (September, 1970) of the Committee to Investigate Teaching made brief mention of a total community study of attitudes towards university teaching. At present, a faculty questionnaire has already been sent out and returned, and the results are being analyzed. It is in this context of the total university community that the proposed study should be placed. This study would focus on those student attitudes believed to be relevant to university teaching or associated learning processes. At times, indirect (i.e. apparently non-relevant) questions may have to be used to obtain the information.

This study will build on and complement various other on-going studies sponsored by the Committee to Investigate Teaching and the Office of Institutional Research and Planning.

1. The Commuting Student Study, which includes items concerning:
    a. reasons for attending university
    b. satisfaction or dissatisfaction in various aspects of university life.
2. The Lister Hall Student Surveys (1969, 1970), which included items dealing with:
    a. demographic data
    b. study and leisure-time activities
    c. satisfaction or dissatisfaction with various aspects of university life
    d. philosophies, goals, and purposes of university education
    e. attitudes towards various social issues and controversial subjects
    f. personality factors (Cattell's 16 PF).

3. The Environmental Assessment Technique Study, which to a certain extent measured the personality of university of Alberta students via their choice of a major field.

4. The Student Union Course Guides, 1968, 1969, 1971 & 1972, measure in detail the students attitudes to particular courses and instructors.

It appears from a survey of the above studies that a great deal of data is presently available, or soon will be available, concerning student attitudes toward university life. Thus the proposed study should not require a very lengthy questionnaire which would be costly and time-consuming to prepare, print, distribute and analyze. Rather, the study would be relatively compact and would aim to fill in the gaps left by the previously mentioned studies. Another consideration which should urge us to consider a briefer questionnaire is the general trend toward greater impatience with lengthy questionnaires. According to some social scientists on this campus, students are becoming more and more impatient with the many surveys they are subjected to; this displeasure is especially evident when it is perceived that the surveys keep asking the same questions. (Yeudall, 1971 - personal communication). It should also be pointed out that students should be convinced of the usefulness of this questionnaire - it should be insisted that what they say does make a difference in how the university's future will be shaped. It should also be emphasized that their participation in the planning process should not necessarily be limited to filling out questionnaires.

THE PROPOSED STUDY

The object of this study is to discover student attitudes toward university life. The concept of an attitude is a rather elusive one which has been the topic of considerable controversy in the past, so a few words are in order regarding the specific meaning of "attitudes" as used in this study.

Basically, an attitude is a "form of readiness for attention or action of a definite sort" (Allport, 1967); by definition, then, an attitude is linked to behavior. Of major importance, however, is the precise nature of this link with behavior. A classic study by LaPierre (1967) illustrates the potential disparity between attitudes and behavior. Six months after a Chinese couple travelled across the United States (being refused accomodation only once, and being treated with special courtesy almost everywhere), over 90% of the same food and lodging establishments replied in a questionnaire that they would not accommodate persons of Chinese origin!

The basic problem with many attitude questionnaires is that they elicit anticipated written responses to hypothetical environments. To remedy this failing, it is suggested by LaPierre that "social attitudes should be, in the main, derived from a study of humans behaving in actual situations." This is essentially the approach suggested more recently by Astin (1968). He suggests that the college environment can be more profitably studied by examining actual student activities rather than by asking students questions to discover their feelings concerning hypothetical or actual events, objects, or situations. In line with his recommendations, the attitude scale we will construct will attempt to avoid the pitfalls associated with asking respondents for their anticipated responses in hypothetical settings; the major part of the questionnaire will consist of questions about actual, on-going activities.

The major objective of this study will be to discover what the students' needs are, and to what extent the university setting provides for the fulfillment of these needs. An appropriate theoretical base for the study would consist largely of Murray's needs-press model, as adapted by Stern (1970). Basically, this model suggests that the adaptation of an individual in a situation is a function of:

1. the individual's needs of organizing tendencies
2. the environmental press.

How Can Needs Be Measured?

Needs are inferred from the spontaneous behaviour in which a person engages, and from which he derives gratification. Thus the determination of needs characterizing individuals can be made from an examination of the activities in which he engages, and from his assessment of the rewards he obtains from participation in those activities.

The first parts of the abbreviated form of the Inventory of College Activities (prepared last year by the C.I.T. research team) will be modified and used as a measure of student participation in a wide range of activities; to this questionnaire will be added a preference scale which will gauge the degree of pleasure, accomplishment, etc., which the students reportedly derive from the activities listed. (See parts A & B of questionnaire).

The Measurement of Environmental Press

Environmental press refers to what is commonly called the climate or atmosphere of a situational context; in this case the context is the university, the press encompasses emotional, intellectual, and social factors. (The physical components of the press have already been adequately covered in the Commuting Student Survey The concept of press closely parallels that of needs, since the press is commonly defined as the conditions that either enhance or impede the expression of a need.

For our purposes the assessment of press is best taken from a subjective, rather than from an objective point of view. In other words, we will be measuring the participants' (students') perceptions of the university environment. An alternative approach would be to take more objective measures of the activities of students which are believed to occur because of rules, regulations, and other demands rather than due to more spontaneous student needs. However, the approach last mentioned is deficient because the actual press so obtained from a listing of activities must be inferred by the researcher. The subjective method of measuring press avoids this problem, and is more valuable because from the point of view of the participant in an environment, it is his perception of the situation which is most important. It has been noted that if the behavioral consequences of a percept are real, then the percept *per se* is important to consider, regardless of whether or not the percept corresponds to "reality".

In this study the measurement of press will be done using a modified form of part of the Index of College Activities (see part C of the questionnaire.) The items in this part of the questionnaire measure student assessments of the environmental demands put on them (e.g. "There was a great deal of pressure put on me to get high grades"). Note that this type item, since it requires that the respondent state his own experience, avoids the problems of the "image" type of item criticized by

Astin (1968); with our type of item, a good environmental press measure can be obtained from the number of students who respond positively or negatively to an item; on the other hand, if students were asked the question "Is there a great deal of pressure on students to obtain high grades here?", very little could be inferred from their responses because the student cannot possibly have access to the relevant information about the feelings of the student body as a whole.

Objectives of the Study

As was mentioned before, this study will attempt to discover student needs and environmental presses relevant to the learning process. How could these results be useful?

A. In planning future university policies and development

It can be argued that the university exists primarily for the development of students. In recent years there appears to have been a trend away from this purpose, as faculty and administrators have been forced by ever larger enrolments to concentrate on existing organizational needs. Both the public at large, and students, however, expect that the university should function as a learning center for students. Thus it is that student needs in planning the educational process have been occasionally neglected. This survey should provide a first necessary step in assessing the intensity and scope of student attitudes towards university life.

Although the results of the study should be considered in the planning of present, on-going university developments, it should be pointed out that student involvement in educational planning should not be restricted to filling out questionnaire forms. On the contrary, student needs could also be expressed through elected student representatives, student delegations, forums, seminars, and various types of participatory - democracy-type situations. An explanation to this effect will be included in the questionnaire, and students will be asked to state their preferences regarding their preferred means of participation in the educational planning process.

B. Theoretical Concerns

This survey will also permit the C.I.T. and the Office of Institutional Research and Planning's staff to explore issues which have less direct application to improving university instruction in the immediate future, but should be valuable in the sense that they will provide a better understanding of the functioning of the university. Some of these questions are:

1. Are responses to the needs and press questions independent, or are student perceptions of the environment a projection of their own needs? On the other hand, a student's perception of his environment may be related to his needs, but in the opposite direction, since he may be more sensitive to the ways in which his needs may be frustrated, than to the ways in which the environmental press may facilitate the expression of his needs.

2. Are the measures of institutional press and student needs related to educational objectives and their achievement, i.e., is correspondence between needs and press a predictor of successful adaptation in the university, insofar as this can be measured by grades, personal ratings of satisfaction, withdrawals before completion of degree, etc.?

3. How are needs and press measures related to the students' aims and purposes in coming to university? Modifications of the "Student Philosophies" items from the Lister Hall and Commuting Student surveys will be able to assess questions such as:

a. Is the degree of needs / press congruency different for faculty and students? (i.e., who does the university serve best?)

b. Are there differences within university faculties? Are these parallel for students and faculty members?

c. To what extent do the faculty members consist of a press for the students, and vice-versa?

DATA ANALYSIS

Questions 1, 2, 3, 4(a) and 4(c) discussed above can be investigated with correlation techniques. Question 4(b) can be assessed by assessed by applying a chi-square test to the data obtained from students an faculty in the different faculties.

Final Note: The questionnaire which follows is only one of the data sources to be used in this study. As mentioned in the introduction, information from at least three other on-going studies will be integrated into this overall study of student attitudes towards university life.

GENERAL EXPECTATIONS CONCERNING THE RESULTS OF THIS STUDY

What sort of results would we expect this study to reveal? From a brief survey of the literature dealing with the current university situation, and from the researcher's experience on the University of Alberta campus, the following predictions are advanced.

1. Attitudes Toward Grading Systems, Competitive Pressures, Etc.

It can be expected that there will be a general feeling of discontent with the nine-point grading system now in effect. There seems to be a growing feeling that as presently used, grading systems seriously inhibit true learning:

> "...the grading system focuses great attention on what is essentially external bookkeeping. But, worse than that, it creates a kind of rivalry between teacher and student and inhibits the teaching-learning process. The grading system represents to many faculty members and students the equivalent on campus of the labor and management relationship in industry. The faculty represents management; the student, labor; grades are the equivalent of wages. It is the object of management (faculty) to get the maximum expenditure of energy out of labor (students) with a minimum of wages (grades); it is the object of labor (students) to get the maximum expenditure of wages (grades) out of the management (faculty) with a minimum output of energy." (Cole, 1966)

The point, obviously, is that such a system fosters mutual suspicion and deceit rather than mutual endeavor:

> "The classroom, dominated as it is likely to be by the requirement that the teacher evaluate the student and thereby determine some part of his future, is also a poor place for students and teachers to get to know each other. The classroom calls for the adoption of what students call masks." (Axelrod & Freedman, 1969)

2. Philosophies of Education

In Campus, 1980, Nevitt Sanford (1968) predicts an increasing trend in the directions of the attitudes manifested by today's activists, i.e., a greater desire for social change; preference for social service work rather than business, science, and engineering careers; more emphasis on emotional and psychological well-being rather than on material wealth; and demands for a larger role in determining their education.

The same trend will likely manifest itself at the University of Alberta, but a recent survey (The Lister Hall Student Survey, 1970) indicates that the activist philosophy of education is not very prevalent here. From the survey it was found that the majority of students (over fifty per cent) have a predominantly social orientation (i.e., the importance for the extracurricular side of college life is emphasized); about twenty five per cent have a predominantly vocational orientation (they are in college primarily to obtain training in their chosen fields); about thirteen per cent have an intellectual orientation (this philosophy attaches greatest importance to interest in ideas and the pursuit of knowledge); less than ten per cent have a primarily individualistic orientation (concerned with personal identity, value, and meaning in life outside commonly-held value orientations.)

Similar trends are expected for the campus as a whole, except that the percentage of students with a social orientation should drop while the other categories should show a corresponding increase. (This difference would be expected on the basis that the Lister Hall residence would attract a greater percentage of students who hold a social orientation, than the percentage of such students in the student body as a whole.)

3. Preferences About Activities of University Life, and Impressions of University Life

Parts A and B of the questionnaire relate to the number of hours spent in various activities, and to student preferences concerning time spent in those activities. It is expected that students will express a desire to spend more time in:

a) independent study
b) informal talk with others
c) working on projects and hobbies not directly related to course work
d) participating in sports
e) participating in musical, dramatic, and artistic activity
f) personal contact with classmates and faculty
g) doing studies not closely related to a selected future occupation
h) political, social, and community involvement

On the other hand, students will likely express a desire to spend less time:

a) attending class
b) attending labs
c) doing assignments and studying for exams
d) writing examinations

These predictions follow from the author's observation that there is growing dissatisfaction with the traditional learning system; lectures, assignments, and examinations are not seen as profitable learning experiences, but as "busywork" required by the system. Thus students feel they can learn more from independent study, from personal interchange of views among students and faculty, and through involvement in community participation.

It is expected that these preferences and dislikes of various university activities will be related to student impressions of university life. For example, the dislike for traditional learning situations described above should be correlated with endorsement of statements such as: "I often felt I was competing with other students for grades" and "I often felt that I was only a 'number in a system'".

4. Means of Student Participation in the Educational Planning Process

It is to be expected from the current student attitudes regarding the impersonality of university life that questionnaires will not be very warmly received. To some extent the questionnaires may contribute to the same impersonality and alienation that they attempt to measure; an impersonal, anonymous, mass-produced questionnaire is not a very personal communication. Others may also object to the questionnaire because, according to Bardnacke (1968), "students may see research studies as a delaying device on the part of those who wish to maintain the status quo." It is likely that other methods of participation in the educational planning process will be preferred to simply filling out questionnaires; participation through elected representatives, through open forums and study sessions, or through referenda, will likely be endorsed more than participation through filling out questionnaires.

Conclusion

In conclusion, this study will attempt to verify the degree to which students perceive a number of potential weaknesses that have been detected in institutions of higher education. A conceivable next step is suggested by Axelrod et. al. (1969), who have grouped these possible weaknesses in six categories, and have suggested new models.

Contrasts Between the Standard Models and the New Models: A Summary of Chapters Four and Five

Weaknesses of Standard Undergraduate Programs	Solutions Proposed by the New Models
Depersonalization in relations between faculty member and student, and between student and student.	Creation of relatively small "primary groups" consisting of faculty and students who, by participating together in the learning process, come to know, care about, and develop a sense of responsibility for one another.
A program of fragmented and departmentalized courses which often relate to other courses within the same department but not to each other.	A program of courses organized in such a way that their materials flow into one another.

Search for Relevance

Weaknesses of Standard Undergraduate Programs	Solutions Proposed by the New Models
A curriculum that is issolated from the community and the world, with "credit"-yielding experiences revolving mainly around books, lectures, written papers, and artificial laboratory exercises.	Classroom, library, laboratory blended together with direct experience in the community and the world as part and parcel of the curricular structure.
Outdated and inaccurate notion about how human beings "learn": teaching is mainly telling; learning is mainly an information-skills storage and retieval unit.	Teaching and learning seen as a process of cooperative inquiry; a "dialectic" is opposed to a "didactic" approach.
Prevalance of notions of academic "success" which give the highest grades to the best gamesmen; emphasis on faculty member as "judge" at the expense critic.	Liberation from the value system which creates the "grades game" between student and faculty; emphasis on faculty member as "judge" relegated to some other person or agency.
A pattern of student freedoms controls--authority and status--that works against growth in students toward independence of mind, creativity, and responsibility.	A pattern of student freedoms and controls--authority and status--that reinforces the values professed by American colleges.

If the same weaknesses are detected here at the University of Alberta, the next step would be a careful examination of the above new models with an eye to their application on this campus.

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Project Report to The General Faculty Council's Executive Committee for the Academic Year 1971-72

The Committee To Investigate Teaching was established at the University of Alberta in the academic year 1969-70. It was charged to (1) look into the aspects of teaching, (2) collect and distribute information, (3) conduct experiments, and (4) make recommendations and changes in the curriculm and teaching practices at the University. Its purview encompassed physical facilities, teaching methods and organizations, academic personnel, student counselling and study habits, and curriculum. This is a report of the Committee's second full year of operation.

HE 004 055

Frame of Reference of The Committee To Investigate Teaching

A University-wide Committee composed of faculty and students has been struck to investigate teaching practices at the University of Alberta. This document is a declaration of its objectives.

APPENDIX I

Frame of Reference of the Committee to Investigate Teaching

Initially, the Committee to Investigate Teaching decided that rigid definition of its function would preclude easy adaptation to the changing needs of the university community. Therefore, its frame of reference was left relatively undefined except for the following guidelines.

The C.I.T. would:

(a) gather and digest information on various aspects of university teaching and learning from both inside and outside the university; to make this readily available to members of the university community through the Committee's library; and to make such recommendations as it sees fit concerning these aspects:

(b) C.I.T. would also examine various aspects of university teaching and learning, focusing especially at the undergraduate level, including (i) teaching loads, (ii) teaching methods, (iii) aspects of the curricula related to teaching effectiveness, (iv) academic counselling of students, (v) the effect the physical and attitudinal environments of the academic community has on learning, and (vi) the increasing impersonality of university teaching:

(c) in reference to (b) above, the Committee will encourage faculty members to undertake independent investigations into the nature of teaching and learning; to encourage

> faculty members to become innovative in their approach to teaching; to initiate original research under its own auspices or in conjunction with other offices and organizations in the university; to publish the findings so that more members of the academic community will become aware of ways to improve teaching.

C.I.T. would not dispense research funds *per se* to individual faculty members but would provide technical aid, services, and assistance to teachers who wished to develop and test innovations in teaching.

After reviewing proposals submitted to C.I.T., the Committee would formally support and advise investigators who desired such formal sanction as assistance in obtaining research grants or in facilitating administrative procedure.

Library Quality Pilot Study

As a means of assessing the quality of the psychology collection, the University card catalogue was searched for the collected works of two well-known authors. The titles held by the university library were then compared to the list of publications by these two authors, as contained in Books in Print, 1970.

This particular technique of assessing the quality of holdings in the library is effective, but time, dollar, and energy consuming. Further, this technique identifies the "stars" of the invisible college, but cannot identify "emerging" authors in the same area.

LIBRARY QUALITY PILOT STUDY

André Gareau and David Otto

At the request of the Library Administration, the Office of Institutional Research and Planning staff undertook a library quality pilot study. A technique based on the invisible college approach was used (Crane, 1970; Hagstrom, 1965). This procedure basically involved: (a) a citation search to determine the most frequently-cited authors in an area, then (b) a list of the authors most recently-published books, and (c) a check of these books against the library holdings.

Two names submitted by an equal number (two) of faculty members in the Psychology Department were used as points of departure. For each name, the four most recent publications were searched for citations and then each of the citations was in turn searched for its citations. Then a frequency count was made to establish the most frequently cited authors ("stars"): 16 in Area A and 20 in Area B. (See Appendix.)

Of the above 36 authors, 17 had books listed in Books in Print, 1970. For these 17 authors, the most recent book was noted and compared with the library card files. Fourteen out of the seventeen books were, in fact, in the library collection. (Of the three books not held by the library, two were printed in 1970, and one was printed in 1968.)

Several conclusions can be drawn from this pilot study:

1. The results indicate that the library is well supplied with the most recent books of the "stars" of the invisible colleges sampled. It

should be noted that in Area B, few of the "stars" had books listed in Books in Print, 1970. In this and similar cases, book holdings may not be very relevant as measures of library quality; periodical holdings may be the only appropriate measure.

2. This study incidentally provided some information concerning the quality of periodical holdings. During the search of the periodicals cited by the original authors, it was noted that over 90 percent of the periodicals cited were held by the library.

3. It has been noted that this method does not identify the younger, "emerging" authors in an area of study; alternate techniques such as surveys of the member of the invisible college, may be necessary to identify these individuals.

4. The time required for such a study is considerable; it took approximately 12 days (84 hours) to find the four most recent articles for the original authors and to search the citations of these articles to obtain their citations in turn. The work involved in this type of study would be greatly reduced if there were available an up-to-date, cumulative abstract index; at present, one must spend considerable time checking the semiannual abstract indeces. A great deal of work is also involved in the actual search of periodicals for their citations. The periodicals tend to be scattered throughout the library and often volumes are out of the stacks.

Possibly then, some other method of assessing the quality of library holdings should be investigated. Although interesting information was obtained, the method used in this pilot project proved to be very time-consuming and would probably not be feasible on a large scale.

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Books in Print, by authors, 1970.

APPENDIX

Study A

Original Name: W. McGuire

Ten Names most cited by McGuire:

M. Deutsch
J. L. Freedman
D. O. Sears
P. Tannenbaum
E. Cooper
D. Papgeorgis
I. L. Janis
C. Osgood
A. A. Lumsdaine
P. Zimbardo

Ten Names most cited by those ten authors whom McGuire cited most often:

C. I. Hovland
(C. Osgood) repeated from list above
L. Festinger
(I. L. Janis)
(P. Tannenbaum)
(A. A. Lumsdaine)
(M. Deutsch)
A. R. Cohen
J. Klapper
F. Heider

McGuire's Citations: Most Recent Book in Print--(*indicates library holding)

1. Cohen, A. R., Attitude Change and Social Influence, 1964*
2. Cooper, E., ____________________ (______ indicates no books in print)
3. Deutsch, M. Disadvantaged Child: Study of the Social Environment and the Learning Process, 1968.*
4. Festinger, L., Conflict, Decision and Dissonance, 1964.*
5. Freedman, J. L., Social Psychology, 1970.*
6. Feider, F., On Perception and Event Structure..., 1959.*

7. Hovland, C. I., and Sherif, M., Social Judgement, Assimilation and Contrast Effects...*

8. Janis, I. L., Personality: Dynamics, Development, and Assessment*

9. Klapper, J., Effects of Mass Communication, 1960.*

10. Lumsdaine, A. A., in Lindsley, D. B., Brain Function, 1968.

11. McGuire, W., ________________

12. Osgood, C., Perspective in Foreign Policy, 1966.*

13. Papageorgis, D., ____________

14. Sears, D. O., with Lane, Robert E., Public Opinion, 1964.*

15. Tannenbaum, P., in Suci, George, R., and Osgood, C. E., Measurement in Meaning, 1957.*

16. Zimbardo, P. ________________

Study B

Original Names: McClearn, G. E.

Most Cited by McClearn:

E. Tobach
R. Mardones
K. H. Kiessling
A. Casey
H. Kalant
L. Erlenmeyer-Kimling
A. Arvola
M. Smith
J. A. Book

Names Most Cited by those Ten Authors Whom McClearn Cited Most Often:

(R. Mardones) repeated from above
J. H. Masserman
E. S. Perman
W. W. Westerfield
R. J. Williams
L. J. Berry
E. Beerstecher
L. A. Greenberg
N. Segovia
A. Hederra
D. Lester

McClearn's Citations: Latest Books in Print--(*indicates library holding)

1. Arvola, A. ____________________
2. Beerstetcher, E. ____________
3. Berry. L. J. ________________
4. Book. J. A. ________________
5. Casey, A. _ ________________
6. Erlenmeyer-Kimling, L.________
7. Greenberg, L. A., Studies of Congeners in Alcoholic Beverages, 1970.
8. Hederra, A.__________________

9. Kalant, H., Experimental Approaches to the Study of Drug Dependence, 1969.*

10. Dressling, K. H., ____________

11. Lester, D., Explorations in Exploration: Stimulation Seeking, 1969.*

12. McClearn, W. ________________

13. Mardones, R. ________________.

14. Masserman, J. H., Depression, 1970.

15. Parker, K. D. ________________

16. Perman, E. S. ________________

17. Segovia, N. __________________

18. Smith, M. ____________________

19. Tobach, E. _______ ___________

20. Westerfield, W. W. ___________

21. Williams, R. J., Biochemical Individuality: The Basis for the Genetotrophic Concept, 1969.*

The Environmental Assessment Technique

Social institutions develop a personality quite similar to those of human beings. Using the technique developed by Astin and Holland four large Canadian universities (Toronto, McGill, Alberta and British Columbia) were studied and the results compared to Astin's findings for 1,018 colleges and universities in the United States. The University of Alberta shows an exceptionally high number of students with a realistic outlook and an exceptionally low number of students with artistic career aspirations.

APPENDIX IV

THE ENVIRONMENTAL ASSESSMENT TECHNIQUE (EAT)

Iris Jackson, Andre Gareau, and David Otto, Ph.D.

I. History of the Development of EAT

The Environmental Assessment Technique (EAT) is a relatively new measure developed by Astin and Holland (1961) to describe college environments. The EAT is based on the assumption that the character of a social environment is dependent upon the nature of its members. Thus an important aspect of the student's environment is the personality of his fellow students.

Edward Spranger (1928) set about developing a model of six goal-directed personality patterns as a description of man. His taxonomy comprises six "ideal" types: theoretical, economic, aesthetic, sociable, power seeking and religious. Gordon Allport (1931, 1951) utilized this theory to develop a Study of Values. During this same period of time (the first half of twentieth century) investigators such as Edward Strong, Jr. (1943) began developing empirical predictors of occupation choice.

Holland and others have theorized the personality and career interests are interactive. As Holland puts it:

> "The choice of an occupation is an expressive act which reflects the person's motivation, knowledge, personality, and ability. Occupations represent a way of life, an environment rather than a set of isolated work functions or skills." (Holland, 1958)

Persons are believed to search for environments that permit them to exercise their skills and abilities, to express their attitudes and values, to take on agreeable problems and roles, and to avoid disagreeable ones. Thus, each environment is dominated by the corresponding personality type. In this context the person's choice of a vocation, or the student's choice of a major field, is an expression of his personality.

If this association between personality type and occupational choice exists, for the individuals, then it should also exist for clusters of individuals. In EAT, the student's choice of a major field is thus taken as a miniature "personality test". The personalities employed by Holland are: Realistic, Intellectual, Social, Conventional, Enterprising and Artistic. Descriptions of these six types have been execpted from Holland's The Psychology of Vocational Choice, and appear in Appendix A of this study. To obtain measures of the six orientations described above, the number of majors (students in a major field) of each orientation is expressed as a percentage of the total number of classifiable majors. For example, the realistic orientation of a college environment would be:

$$\text{Realistic Orientation} = \frac{\text{no. of majors classifiable as realistic}}{\text{total number of classifiable majors}} \times 100$$

II. Procedure

The authors proceeded in the following fashion: firstly they obtained the list of subject headings which Dr. Holland used to break his particular colleges and university enrolments into the six personality types. All of the program program specialization areas in the University of Alberta were similarly arranged and classified. The registration statistics of students in each program of specialization classified as "realistic" then became the numerator in the formula above.

Secondly, we obtained a set of Means, Standard Deviations, and T Scores from Dr. Astin for each of the six characteristics, which were derived from Astin's analysis of 1,018 colleges and universities in the United States. The authors then computed the particular T Scores for each "personality" category in the University of Alberta.

Thirdly, the registrars in five other Canadian universities were approached and asked to provide enrolment statistics of their particular institution. These five institutions were McGill University, the University of Toronto, the Univeristy of Saskatoon, the University of Calgary, and the University of British Columbia. It was the intent in this study to compare institutions of higher learning in Canada of comparable size and stature.

Finally, based upon the usable data which three of the universities (University of Toronto, the University of Saskatchewan and the University of British Columbia) were able to provide, similar classifications and computations of T Scores were performed.

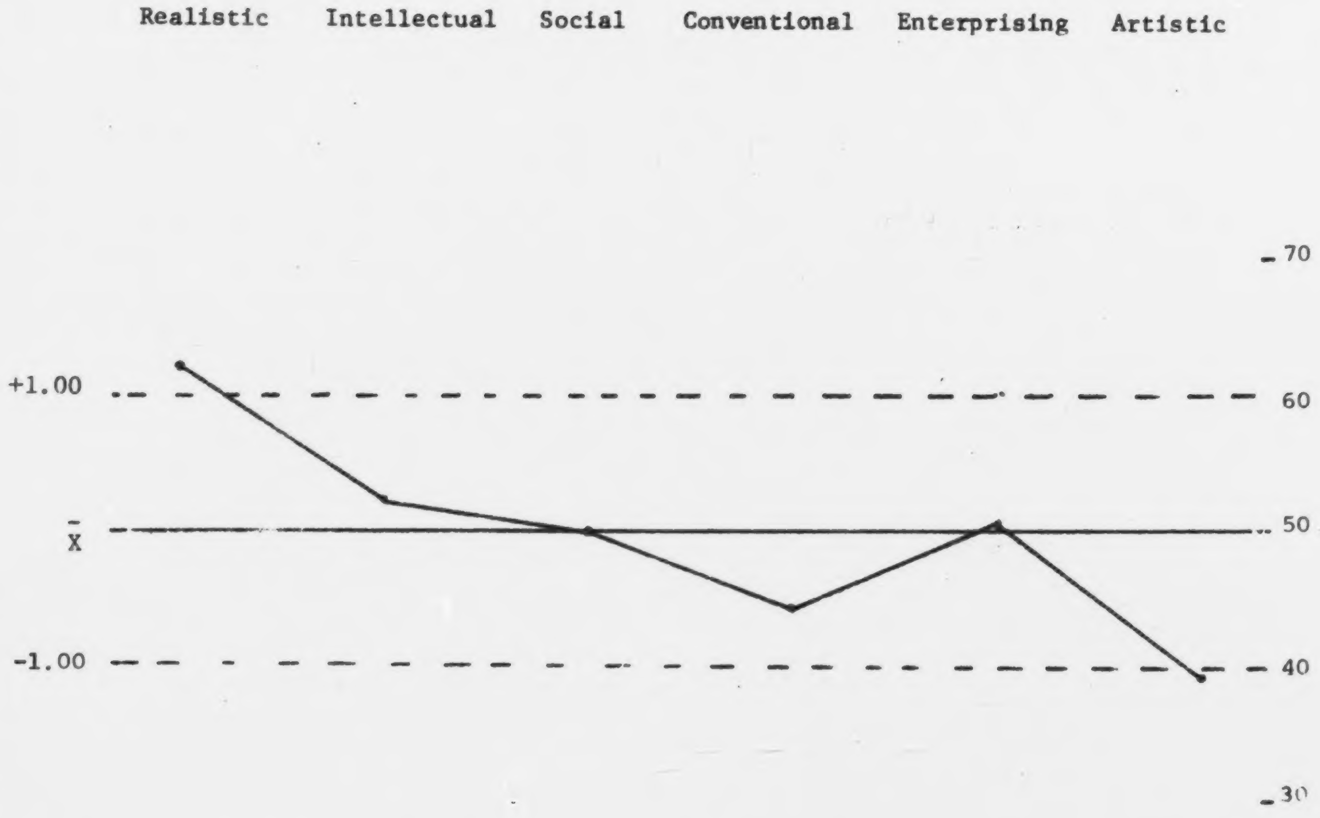
The information so gathered is presented in the following section in a two-part form: The Numerical Distributions are prepared in tabular form and a profile of each institution is presented in a graphic form.

TABLE I

The Mean and Standard Deviation of Percentage Distributions of 1,018 Colleges and Universities in the United States compared with the Percentage Distributions and T-Scores of Four Canadian Universities over Holland's Six Personality / Environment Classifications.

Type	Astin's 1,018 C U's		Four Canadian University Distributions and T-Scores							
	Mean %	S.D. (%)	U. of Alberta		U. of Toronto		Saskatoon Campus U. of Sask.		U. of British Columbia	
			%	T-Score	%	T-Score	%	T-Score	%	T-Score
Realistic	8.6%	12.0%	23	62.00	35	72.00	24	62.83	12	52.83
Intellectual	17.9%	9.2%	20	52.28	17	49.02	16	47.93	33	66.52
Social	36.0%	17.0%	36	50.00	15	37.65	41	52.94	24	42.94
Conventional	8.0%	8.4%	3	44.05	1	41.67	8	50.00	3	44.05
Enterprising	11.8%	8.7%	12	50.23	11	49.08	4	41.03	8	45.63
Aetistic	17.1%	10.1%	6	39.01	21	53.86	7	40.00	20	52.87
TOTAL	99.4%	N/A	100%		100%		100%		100%	

The University of Alberta compared to 1,018 U.S. colleges and universities in Dr. Astin's Environmental Assessment Technique: Expressed in T-scores
(Mean = 50, Standard Deviation = 10)



The University of Alberta

III. A. The University of Alberta Compared to Colleges in the United States

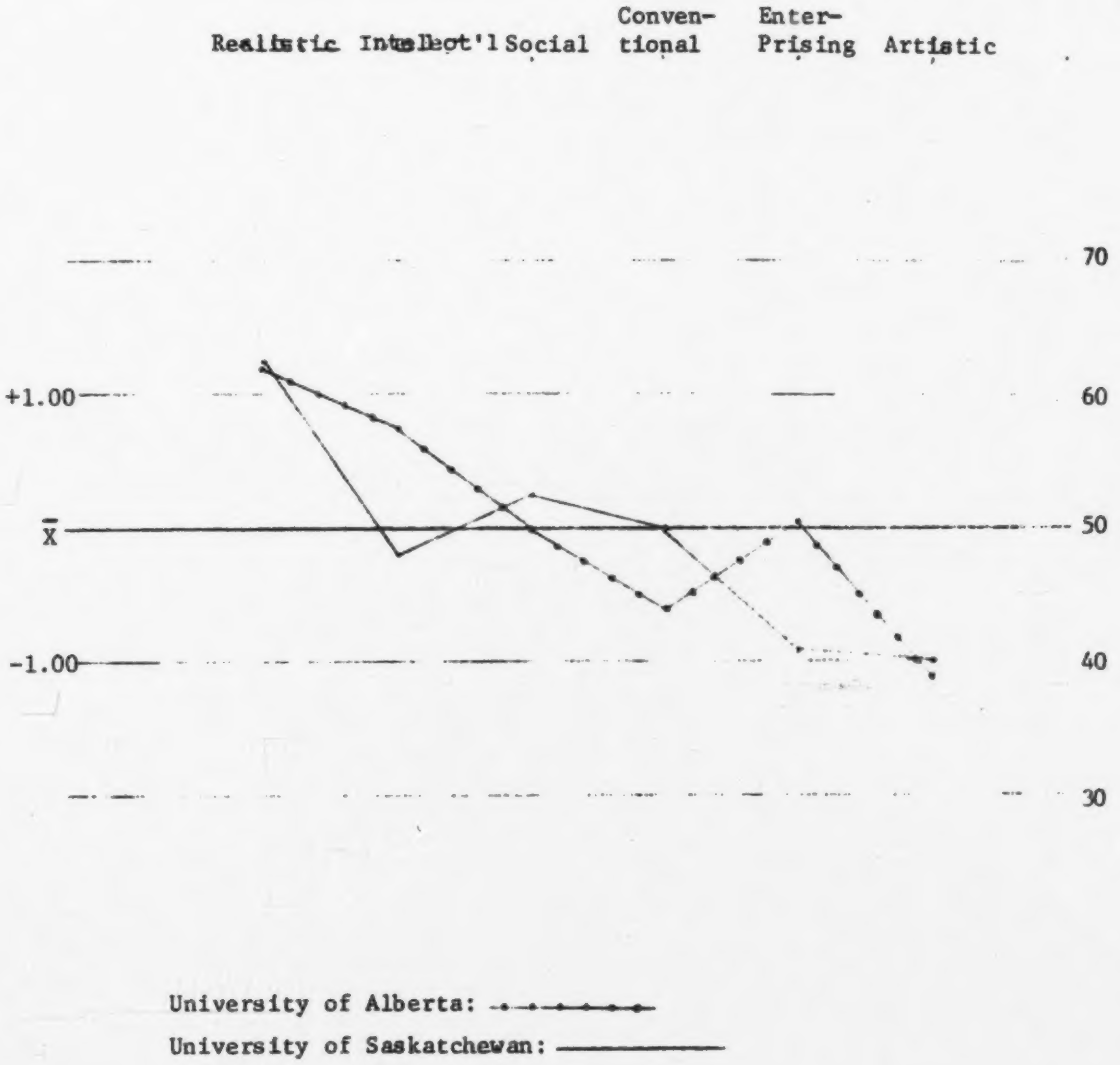
Compared to approximately 40% of the American colleges and universities, the University of Alberta has a curricular offering which attracts more students seeking a career and a "realistic" endeavor, and noticeably fewer students in an artistic occupation.

A T-Score of 62.00 in the Realistic category indicates that a greater portion of students enrolled at the University of Alberta (80% more than students enrolled in colleges and universities in the United States) have very concrete goals which tend to be in professions containing few conumdrums. The students tend to be masculine in their orientation, emotionally stable, materialistic, and have a no-nonsense approach to life.

The University of Alberta matches the norm of the American colleges and universities in the Socialistic category.

In contrast to the Realistic and Social proportions, this institution has fewer artistically inclined students than the average college or university in the United States.

The University of Saskatchewan (Saskatoon Campus) compared to the University of Alberta on the Environmental Technique.

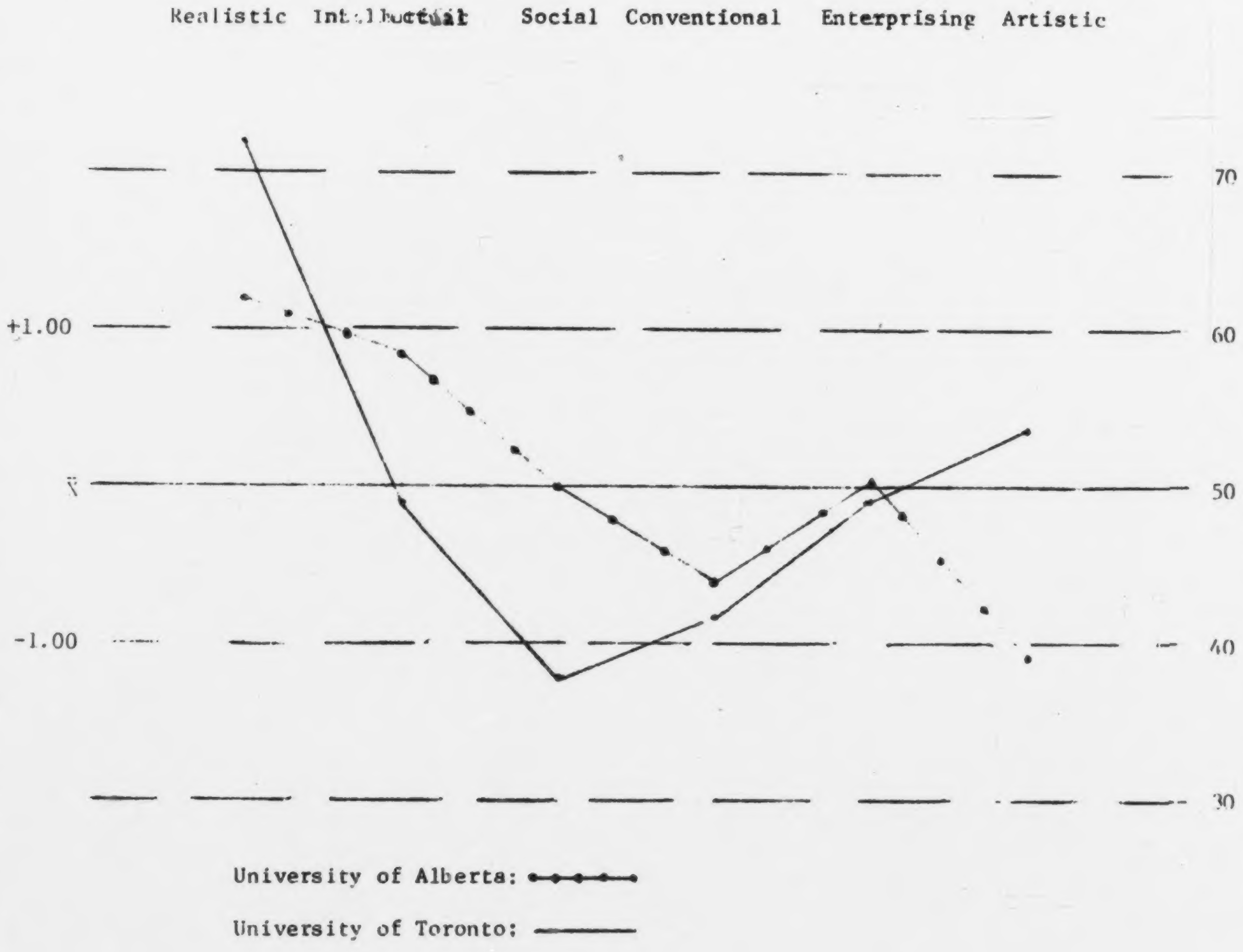


The University of Alberta Compared to the University of Toronto

If the University of Alberta contains more students of a realistic persuasion than the majority of colleges and universities in the United States, then the University of Toronto is even further characterized by students with a realistic point of view. The University of Toronto falls within the top 2% of the American distribution.

Unlike the University of Alberta it has a fairly strong representation of students with an artistic profile. The University of Toronto's lowest area (with a T score of 37.65) is in the social area, which puts it close to the fortieth percentile in the distribution of types among all U.S. colleges recorded in the Astin and Holland (1961) study. The difference in the social factor is probably due to the high enrollment in Education at the University of Alberta, while the difference in the artistic factor may be due to the high enrollment at the University of Toronto in such schools as Architecture and Commercial Art.

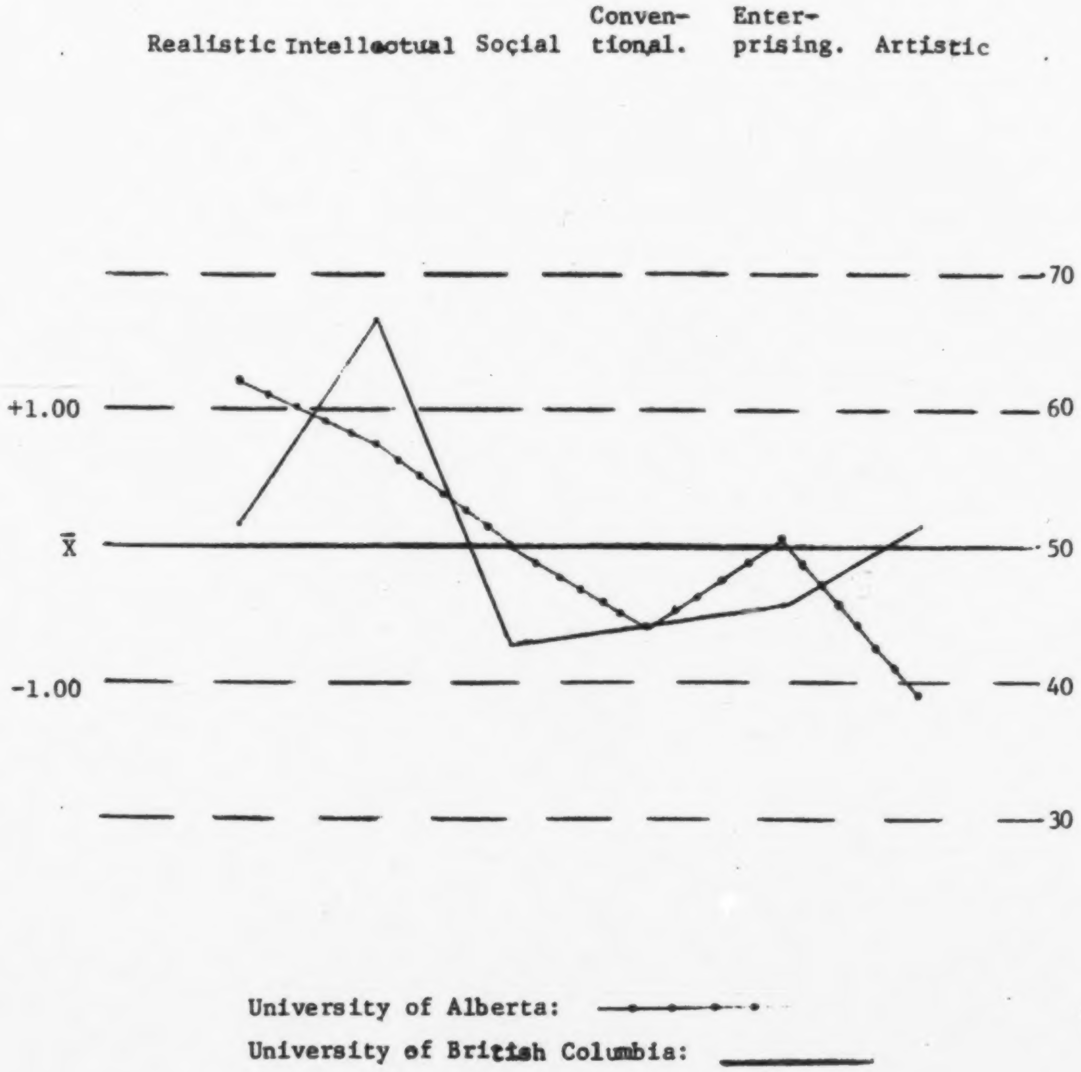
The University of Toronto compared to the
University of Alberta on the Environmental
Technique.



The University of Alberta Compared to the University of Saskatchewan (Saskatoon Campus)

The proportion of types between the University of Alberta and the University of Saskatchewan (Saskatoon) is very, very similar. The Saskatoon campus of the University of Saskatchewan is very high in its materialistic proportion of students and quite low in its artistic proportion of students. The primary differences which occur are that the Saskatoon campus has more conventional oriented people and fewer of the scientific and enterprising people. The Intellectual, Enterprising, and Artistic factors, however, are much lower than the mean. Thus, the majority of students at the University of Saskatchewan express a preference for an altruistic, interpersonal, pragmatic, and concrete education in an applied field over a theoretical, abstract education.

The University of British Columbia compared to The University of Alberta on the Environmental Technique.



The University of British Columbia is classified above the other three Canadian Universities in the Intellectual category, and has more students in this category than 95% of the colleges and universities reported in Astin's study. It appears that the University of British Columbia is characterized by a large number of students enrolled in the professional and scientific schools. In contrast to the University of Alberta, the University of British Columbia has many fewer students enrolled in curricula of a realistic nature or of a social nature and enterprising nature, but exactly the same in terms of the conventional nature, but many more in terms of a scientific and artistic endeavour.

Discussion

The authors acknowledge that there is a difference in culture between that of Canada and that of the United States. Although there is not enough detail available to identify, measure and control these cultural variations the authors feel that cultural differences do not have any extensive effect on the data because many of the career objectives sought by residents of both countries are extremely similar. (i.e. Holland has based his studies on such occupational choices as physician, dentist, pharmacist, art teacher, truck driver, master plumber, etc.) Moreover, many of the courses which are given in the Canadian colleges and universities are very similar to courses offered in the United States.

Nevertheless, many of the differences do exist between Canadian institutions and the norms which have been established in the study of over a thousand colleges and universities in the United States. Three out of four colleges and universities studied have more realistically oriented people enrolled in courses leading to vocations of a pragmatic philosophy. This is especially true of the two prairie universities studied (Alberta and Saskatoon) which are sited in a region noted for its agrarian and extracting industries. Fairly conclusive inferences could be drawn from these data. Firstly, because of the high percentage of realistically oriented students in the University of Alberta, and an average amount of representation from the social, conventional and enterprising students of vocational interest, the type of structure in a course (i.e., the amount of direction and organization in a course syllabus, the manner of teaching, etc.) should be quite highly organized and very straight forward.

Secondly, it was somewhat discouraging to note that this particular institution is slightly above average in reference to students pursuing intellectual activities, which suggests, in contrast to the realistic characterized students, that ideas and concepts of an extreme abstract nature are much less welcomed on this campus than elsewhere.

Although this particular assessment technique was validated by Holland in a late study (Holland 1969) its effectiveness in describing institutions and making enter-institutional comparisons about the character of the institutions seems rather limited. While the instrument itself seems to be quite good, it is too broad. We tend to be using a yard stick to measure molecules.

Conclusion

Four Canadian Universities were classified on six personality profiles used by Astin and Holland to describe the student populations of over one thousand U.S. colleges and universities. When compared to the norms of the U.S. institutions of higher learning, three of the four Canadian universities have a disproportiately higher percentage of students seeking practical careers. This last fact suggests that instruction at the U of A (one of the three) is, and should be, aimed more towards the students' needs to have something which can be immediately applicable rather than something less tangible.

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Appendix A

Excerpts from John L. Holland's The Psychology of Vocational Choice: A Theory of Personality Types and Model Environments. Waltham, Mass. Blaisdell Publishing Company, 1966 (Chapter 2).

The Realistic Model

"The Realistic person copes with his physical and social environment by selecting goals, values, and tasks that entail the objective, concrete valuation and manipulation of things, tools, animals, and machines; and by avoiding goals, values, and tasks that require subjectivity, intellectualism, artistic expression, and social sensitivity and skill. The Realistic type is masculine, unsociable, emotionally stable, materialistic, genuine, concretistic, and oriented to the present.

"The Realistic person differs from the Intellectual person in that the Realistic person is more practical (concerned with facts), emotionally stable, masculine, and conventional (more concerned about success, status, and leadership) than the Intellectual person. The Realistic person is less scholarly (less apt to seek a Ph.D. or daydream about achievement and learning), original, sociable, insightful about interpersonal relations, independent, and self-confident than the Intellectual person. The Realistic person differs from the Social and the Enterprising person primarily in social skills and interests. The Realistic person is more masculine and less original than the Artistic person. The Realistic person differs from the Conventional person primarily in that the Realistic person is less responsible and sociable and more impulsive, stable, masculine, submissive, and self-deprecatory.

The Intellectual Model

"The Intellectual person copes with the social and physical environment through the use of intelligence: he solves problems primarily through the manipulation of ideas, words, and symbols rather than through his physical and social skills.

The Intellectual person is characterized by such adjectives as analytical, rational, independent, radical, abstract, introverted, anal, cognitive, critical, curious, and perceptive.

"...The Intellectual person differs from the Artistic person in that the Artistic person is more feminine, impulsive, irresponsible, and unstable, and makes greater use of his feelings and intuitions as guides to problem solving and creating works of art. The Intellectual person is less sociable and conventional than the Social Conventional, and Enterprising persons.

The Social Model

"The Social person copes with his environment by selecting goals, values, and tasks in which he can use his skills with an interest in other persons in order to train or change their behavior. The Social person is typified by his social skills and his need for social interaction; his characteristics include sociability, nurturance, social presence, capacity for status, dominance, and psychological-mindedness. He is concerned with the welfare of dependent persons; the poor, uneducated, sick, unstable, young, and aged. In problem solving, he relies on his emotions and feelings rather than on his intellectual resources.

"The Socaal person differs from the Enterprising person in being more feminine, introverted, helpful, intellectual, insightful, co-operative, friendly, responsible, (having religious and social values), and less energetic, aggressive, dominant, sociable, adventurous, cynical, and enthusiastic. The Social person differs from the Conventional person in that the latter is more self-controlled, hard-headed, masculine, and submissive. The Social person is more sociable, dependent, and conventional than the Artistic person.

The Conventional Model

"The Conventional person copes with his physical and social environment by selecting goals, tasks, and values that are sanctioned by custom and society. Accordingly, his approach to problems is stereotyped, practical, correct; it lacks spontaneity and originality. His personal traits are consistent with his orientation. He is well-controlled, neat, sociable, and creates a good impression. He is somewhat inflexible, conservative, and persevering.

"The Conventional person is most closely related to the Enterprising and the Social person. He differs from the Enterprising person in being less sociable, aggressive, dominant, original, enthusiastic (surgent), impulsive, self-confident, and adventurous. He is also more responsible, dependent, and conservative than the Enterprising person. The Conventional person differs from the Social person in that he possesses greater self-control, is more hard-headed, and is less dominant and nurturant.

The Enterprising Model

"The Enterprising person copes with his world by selecting goals, values, and tasks through which he can express his adventurous, dominant, enthusiastic, energetic, and impulsive qualities. The Enterprising person is characterized also by his persuasive, verbal, extroverted, self-accepting, self-confident, oral aggressive, exhibitionistic attributes.

"The Enterprising person differs from the Artistic person in that the latter is more introverted, feminine, self-deprecating, creative, unstable, independent, unconventional, and unsociable.

The Artistic Model

"The Artistic person copes with his physical and social environment by using his feelings, emotions, intuitions, and imagination to create art forms or products. For the Artistic person, problem solving involves expressing his imagination and taste through the conception and execution of his art.

Similarly, he relies principally on his subjective impressions and fantasies for interpretations of and solutions to environmental problems. The Artistic person is characterized further by his complexity of outlook, independence of judgment, introversion, and originality.

A Report on Room 289, Central Academic Building

The Committee To Investigate Teaching at the University of Alberta was successful in furnishing a classroom in an unconventional manner. This paper reports on the users' opinions of the furnishings.

UNIVERSITY OF ALBERTA

A REPORT TO THE G.F.C. COMMITTEE TO INVESTIGATE TEACHING ON ROOM 289, CENTRAL ACADEMIC BUILDING

BY

JUDY BRUNT

&

DAVID OTTO, Ph.D.

OFFICE OF INSTITUTIONAL RESEARCH AND PLANNING

FEBRUARY, 1972

The Report on Room 289, Central Academic Building
Fall Term 1971-72 Academic Year
David Otto, Ph. D. & Judy Brunt

Background

In September of 1971 the Experimental Classroom, Room 289, CAB, became operational. At the time, two faculty members were already conducting classes there. A letter was sent to all instructional faculty (see Appendix II) inviting them to view the room with an eye towards using it for their classes.

At the end of the first week in November some 30 people had expressed varying degrees of interest in that room, at least by the count kept in the Office of Institutional Research and Planning. Other interested faculty members may have viewed this room either by contacting Mr. Rolheiser (the building superintendent) or by glancing into the room between classes. Institutional Research and Planning inquiries came from members of six faculties: Agriculture, Arts, Education, Nursing, Physical Education, and Science; and represented 12 of the departments on campus. We were able to schedule 10 instructors into Room 289 to teach 12 courses scheduled for the second term (see Table I, Appendix I).

Room 289 has been booked for short-term use as well. Eight instructors have used that room during the fall term for one or more class periods - just to see how they and/or their students responded to a new set of environmental stimuli. Or, as in the case of one Education faculty's course, to study a new approach to furnishing a classroom. One session was a lecture on Micro teaching using portable VTR (Video Tape Recorder) units.

Two campus organizations (CUSO and Student Help) were able to use the experimental classroom six separate evenings (2 for CUSO, 4 for Student Help) to hold staff training sessions. The student leaders for both organizations reported that training sessions were, in their opinion, more effective in Room 289's informal atmosphere than similar sessions held in the more conventional classroom settings.

Utilization of Room 289

One administrative measure of effective space use is the percentage of time a given classroom is used. Of the nine hours between 8 a.m. and 5 p.m., on each of the five weekdays, Room 289 was utilized some 27½ hours. This figure (27.5) when divided by the total number of hours available, 45, (or 5 days a week, 9 hours each) provided us with one index of utilization. Thus, Room 289 was used some 61% of the available time during the fall term. It should be pointed out that the room, in addition to the one-time users, was also used for an extension course on Thursday evenings, and that in the winter term two additional evening courses will be taught. Current bookings for the winter term indicate a room utilization rate of 88% in the 45 hour week.

Teacher & Student Reaction to Room 289

The Office of Institutional Research & Planning has received some feedback from the students and instructors to Room 289. We had requested that instructors convey both their initial reactions to the room and those of their students after the first few sessions. Here is a synopsis of the responses we have received:

(a) POSITIVE COMMENTS

The most vital feature of this room is that it seems to facilitate interpersonal communications. We feel that this reduction of communication barriers is due to a number of factors (relaxing colorful atmosphere, lack of actual physical barriers between all people in the room). A number of students commented that they were no longer looking at someone's back and felt that they could communicate much better looking at one another. It appears that not just the students, but the professors also found a change. As one English professor stated "... the change in atmosphere in the new room was striking -- the class had already been unusually active in the discussion, but several students who did not formerly participate now became quite active ... an important point is that the elimination of the physical division between instructor and class encourages students to discuss with each other as well as directing remarks to the instructor."

There had been some concern on the part of instructors that the atmosphere would be too relaxing, especially for the early morning users. We found, however, that the students using the classroom in the morning, (8 a.m.) did not find the room too tranquil. No one, in open ended comments about the room, mentioned that it made him drowsy or sleepy. In fact, the twenty-six students taking a 200 level English course at 8 a.m. Mondays, Wednesdays and Fridays responded to two questions on a Questionnaire in the following manner:

"(3) I find this classroom:

More relaxing	22 responses
Less relaxing	4

(4) I find it:

easier to concentrate	19
more difficult to concentrate	4
impossible to concentrate	0
about the same in this room	3"

We have interpreted this data to mean that the majority of students in the 8 a.m. class (who, by the way, are not grossly untypical of most students in 200 level English courses) do not consider relaxation and concentration as mutally dependent conditions.

(b) NEGATIVE COMMENTS

The comments that were unfavourable towards the classroom were concerned with the physical duress present in this room. The students objected (some quite strongly) to the lack of comfortable undercushioning beneath the carpeting. They also mentioned the fact that during an hour and a half session one begins to feel very uncomfortable on the boxes, as they too, lack adequate padding. The subject of the pin lights was brought up by a number of students due to the fact that they emit a great deal of heat and when there are a number of students in the room at the same time, the heat can become oppressive.

General Comments

Most of the respondents (both students and instructors) indicated that the room lends itself more to a seminar situation than to a lecture presentation. Quite a few students observed that it is difficult to take notes in this room.

One instructor noted that the physical structure of the room did not aid in a clear definition of the roles of "teacher" and "student". In place of the chairs lined up in rows facing a lectern and blackboard, one is confronted with an elliptical setting without a discernable focal point. This may at first be uncomfortable, but judging from the reports of the users, the effect on both students and teachers seems to wear off in time.

Summary and Conclusions

By the end of the academic year 1971-72, 14 professors from eight departments will have taught 25 courses in Room 289. Initial reactions toward the room are favourable, the main comments dealing with the ease of communication in the relaxing, colourful atmosphere with the lack of barriers between professor and student. The negative comments dealt primarily with the lack of physical comfort -- the boxes not padded enough, the inability to hold large classes and heat generated by the lights. All in all, it appears that both instructors and students are satisfied with the room and would like to use more classrooms furnished in a similar manner.

We would like to point out that the instructors had to adjust to the new setting and we have found that a number of them did not know how to make use of the facilities available in the room. In the future, we hope to have training sessions available for those who would like to use this room.

APPENDIX I

TABLE I

Course Registration in Room 289, Central Academic Building, by term: Academic Year 1971-72, as of Dec. 1971

	Full Year Courses		First Term Courses		Second Term Courses	
Department	Number of Instructors	Number of Courses	Number of Instructors	Number of Courses	Number of Instructors	Number of Courses
English	2	3	2	2	2*	2
Ed. Psych.	0	0	2	2	4++	5
Drama					1	1
Pol. Sci.	1	1			1	1
History	1	1				
Economics	1	1				
Phys. Ed.	1	1				
Psych.	0	0			1	1
	6	7	4	4	9	10

* Same 2 instructors

++ Two new instructors

Number of Different Individuals Instructing, by Dept.

	Instructors
English	4
Ed. Psych.	4
Other Depts. (1 each)	6
	14

INTER-DEPARTMENTAL CORRESPONDENCE

TO All Members of the Teaching Staff.

DATE September 27, 1971

FROM Dr. Wm. Meloff,
Chairman of the Committee to Investigate Teaching.

RE: Pass/Fail Grading System in Undergraduate Courses

The Executive Committee of the General Faculty Council has authorized the Committee to Investigate Teaching to investigate the pass/fail grading system as an alternative to the present grading system. The Committee to Investigate Teaching has set up certain guidelines for examining this system (see attached).

RE: Room 289, Central Academic Building

The Committee to Investigate Teaching has also been able to have room 289, the Central Academic Building furnished in a distinctly different manner than is usually found in the typical classroom. The Committee's intent is twofold: to present an alternative learning environment to the student and to study the cognative and affective effects of this environment.

The Committee is interested in learning if you would be willing to participate in either of these studies. If you do, or if you wish to obtain more information about either study, please contact the following individuals:

For Pass/Fail
Dr. D. Schaeffer (5259)
Dr. D. Otto (5297)

For Room 289
Dr. D. Otto (5297)

Wm. Meloff.

Attach.
DO/vcn

Academic Staff Attitudes at the University of Alberta, 1971

A sample of faculty members at the University of Alberta was asked their attitudes towards contemporary social issues such as birth control, maternity leave for students, and the non-medical use of drugs. Finally, the academic staff was asked to react to the reorganization of the university's legislative body. The General Faculties Council had just increased its size to give student representation parity with the teaching staff.

Faculty felt that the health service should dispense birth control advice and devices. It was undecided about maternity leave for students, but felt that drug laws ought to be changed. It differed from popular student attitudes in that it felt hard drug punitive measures should be increased. Finally, the majority of faculty surveyed felt that students should have a vote but should not have quantitive representation on legislative matters.

APPENDIX VI

ACADEMIC STAFF ATTITUDES
AT THE UNIVERSITY OF ALBERTA
1971

SUBMITTED TO THE
COMMITTEE TO INVESTIGATE TEACHING
BY DAVID OTTO, PH.D.

OFFICE OF INSTITUTIONAL RESEARCH AND PLANNING

APRIL 1972

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I. SUMMARY

One would like to believe that the teacher has a lasting influence on his students; not only in the intellectual realm, but in other areas as well. A good teacher, Jacob (1957) observes, "...couples (a) high respect for students as persons, with a capacity to arouse interest in his subject." (p. 7) When a teacher enjoys such rapport with his students, personal opinions and attitudes of both student and teacher are bound to emerge. This study examined the opinions of a randomly drawn sample of academic staff to ascertain their position on a number of contemporary issues on campus during the 1970-71 academic year.

DRUGS:

The faculty, by and large, would like to see a change in the drug control laws, but in a more conservative direction, and certainly in the opposite direction that the students would seem to want to go.

BIRTH CONTROL DEVICES AND MATERNITY LEAVE:

The faculty responses indicate an endorsement of dispensing birth control devices to students. Written comments on the questionnaire have shown that a fair number of faculty members have not given much thought to their attitude towards granting maternity leave to students. Two out of every three who answered this question were in favour of a maternity leave policy for female students.

PARITY ON THE GENERAL FACULTIES COUNCIL:

The faculty sample felt that student representation on GFC should be increased, but were divided as to whether or not this should be parity.

I. Background

In March of 1971 a questionnaire was sent to a randomly drawn sample of full-time academic staff at the University of Alberta (see Appendix I for details). The sample was composed of representatives of the teaching staff, from lecturer to professor; librarians and members of the academic staff holding administrative posts below the vice-presidential level (i.e., deans, chairmen and directors).

This questionnaire had many objectives. One purpose was an opinion survey of the Honours Program, as requested of the Office of Institutional Research by the Academic Development Committee (see Jackson, 1971, II). A second objective of the questionnaire was to provide information concerning the attitudes of the academic staff about contemporary issues on the University of Alberta campus (the topic of this report). The third purpose of the questionnaire was to supply the first part of a two-part assessment of a description of this campus. (A. Gareau, 1971). Finally, it provided desiderata to be used for a modified replication of Alvin Gouldner's study of faculty types (Gouldner, 1957). Questions dealing with the first two of these four purposes were rather straight-forward and easily identified in the questionnaire. The last two were more abstruse - at least to the respondents. Because no clear connection between 'questions put' and intended use was present, it might be propitious to digress momentarily and explain the source and reason for employing these questions.

Social institutions have 'character,' just as humans do. A high Anglican Church service differs noticeably from a Pentecostal revival meeting, yet both are undertakings of religious institutions in our society. Colleges and universities also have institutional idiosyncracies. Alberta's two newest post-secondary institutions evinced this even before they became fully operational. Athabasca University's statement of educational philosophy is humanistic in nature, yet retains a modicum of elitism in its enrolment policy. Conversely, Grant MacEwan defines higher education as an "open door" egalitarianism, where the traditional liberal arts subjects take a back seat to the more pragmatic fields of learning. Quite understandably, the character of a particular organization in a given social institution results from the collective contributions of its members. It is reasonable to assume that Athabasca and MacEwan have attracted instructors with different sets of educational and interpersonal values.

It must also be assumed that both academic communities differ from the character of the University of Alberta. As a field of study very little is known about the nature and character of individual colleges and universities. Some work has been started in this direction, notably in the United States. (Pace & Stern, 1958; Astin, 1968; Jencks & Riesman, 1968; Riesman, 1956; Ashby & Anderson, 1966; Sanford, 1964; Gouldner, 1957-58 and Wilson, 1964). Two of these studies, (Pace & Stern, and Gouldner) were selected because they were investigative in nature (as opposed to the theoretical writings of Ashby, Riesman and Wilson) and because they examined the attitudinal sets of students and faculty. In the case of the ICA (Index of College Activities) the study was originally concerned with the perceptions of students about the campus atmosphere (see Gareau, 1971). One must realize, of course, that student perception can only account for part of the academic community's perception of la vie académique. So it was decided to carry the study of perception a step further, and, with slight modification, ask comparable questions of BOTH student and faculty.

Fifteen questions, representing the highest factor loadings in Pace and Sterns' study were selected and modified for the faculty questionnaire. (viz: questions were changed from "I often felt that I was competing with other students for high grades" to "Students often feel that they are competing with other students for high grades," - each question having a five-point Likert type scale from 'Strongly Agree' to 'Strongly Disagree.') A questionnaire for students soon will be sent to the students.

Another way to assess the character of the institution is to see how much the faculty man identifies with his place of employment. The faculty man has, in essence, two professional loyalties: to his discipline and to his university. Rarely does anyone divide his loyalties equally. Capitalizing on a Parsonian theory (Parson, 1951), Gouldner (1958) postulated that the 'company man,' i.e., the one loyal to his university, permitted local problems and concerns to dominate his orientation while the 'cosmopolitan' man looked to his international discipline as a source of self actualization. Gouldner carried his research to the point where he was able, using factor analysis, to identify three types of "local" faculty and two types of "cosmopolitans." He stopped there. This writer desires to see if the university faculty can be so identified and what effect each of these two categories has on teaching at the university.*

---

* It should be stressed at this point that the individual faculty member's responses have been and will continue to be kept in strictest confidence. The original questionnaires have been destroyed. Other precautions have been taken to insure that no individual respondent can be identified from the reports of the data.

II. Faculty Attitudes Towards Current Issues on Campus

Naturally one other way of assessing the character of the University of Alberta is to ask questions directly relevant to the daily occurances on campus. Issues which occurred in the last year or two, which seemed to polarize opinion between faculty members or between groups of faculty and groups of students were presented to the respondents of the questionnaire. These issues were: 1) the non-academic aspects of students' life (i.e., drug use, the availability of birth control devices, and the possible formulation of maternity leave policy), and 2) student participation in university governance.

A. Student Life

Even within the space of one generation society has moved towards a more permissive attitude of public behaviour. Evidence of this movement abounds in 'x' rated movies, modern literature, and the news media. One senses that there may also be an increased laxity in the in loco parentis role. Faculty are no longer expected to assume parental responsibilities. One may wonder just how far the faculty has shifted from its role of stern disciplinarian to that of a detached, unquestioning observer.

One of the latest steps in this movement towards a permissive society centers about the legality of certain drugs. The Le Dain report (1970) provides a rather broad definition of drugs, and its definition posed a problem to this study, for to include all the categories of the Le Dain report (p. 1, et seq.) would substantially lengthen the questionnaire. To select one or two drugs (e.g., marijuana, LSD, etc.) might be too restrictive. Then too, came the problem of the appropriate questions to put to the faculty; should one ask about drug use on campus, or merely the faculty's attitude towards drug use in general? The latter was selected as an area of study, and all drugs (with the exceptions of caffeine, nicotine and alcohol) were divided into two general classes: habit-forming and hallucinogenic. While all 'drugs' could be habit-forming, not all are hallucinogenic. So the first class of habit-forming drugs generally includes barbituates, tranquilizers, amphetamines, and cannabis, while the second is limited to LSD and opiates. These drugs, and their use, are governed by certain laws (Narcotic Control Act, Food and Drugs Act and the Alberta Public Health Act), and part of the Le Dain Commission's report dealt with the possible changes in these regulations.

The two general categories of drugs were subsequently divided into two further questions: should the laws be changed?, and in what manner?

TABLE I

FACULTY RESPONSES TO TWO PAIRS OF QUESTIONS:

Should the Laws on the Non-Medical Use of Habit-forming (Hallucinatory) Drugs be Changed? And Should the Laws be Liberalized?

	Habit Forming Drugs				Hallucinatory Drugs			
	Changed		Liberalized		Changed		Liberalized	
	N	%	N	%	N	%	N	%
Yes	45	70	28	37	35	60	32	46
No	19	30	47	63	23	40	38	54
TOTAL	64	100	75	100	58	100	70	100

While Faculty opinion coincides with student opinion in that both groups feel that the laws governing the non-medical use of drugs should be changed, opinion differs on the direction of change. Seventy percent of the sixty-three respondents favoured changing laws governing habit-forming drugs, and 60% of the 58 respondents favoured changing the laws governing hallucinatory drugs. In both instances the majority of the respondents preferred not to have these laws liberalized. Student opinion, as reported by the Gateway, however, favours liberalization of the laws governing drug possession and use. (Gateway, February 5, 1970 and Gateway, October 30, 1970.)

Faculty opinion represents the 'older' generation in that a more conservative attitude towards the use of drugs, and stronger punitive legislation predominate.*

B. Birth Control and Maternity Leave

One wonders if the same variety of conservation in faculty attitude extends to the moral behaviour of the students. Birth control devices are not prohibited by law, so one need not worry about legislation. Severe proscriptions do exist, however, in the form of social mores and religious mandates.

The data from the questionnaire suggests that the faculty endorses the distribution of contraceptive devices through professionally staffed, formalized channels (i.e., the Student Health Service).

Dispensing the 'Pill' is a *fait accompli* on this campus. The practice of granting maternity leave to students is not. Because this particular issue has not been widely discussed on campus in the public media, individual faculty members have not firmly committed themselves to a decision even though the response was two to one in favour of maternity leave.

---

* It is surprising to observe, however, that the age of the faculty respondent does not correlate significantly with any but one of the responses in Table I. But, then, only six of the respondents were 30 years old or younger. (See Tables III through VI, Appendix I for details).

TABLE II

FACULTY RESPONSES TO TWO QUESTIONS:

"Should the Student Health Services be Permitted to Dispense Birth Control Devices? and "Should Women Students be Allowed Maternity Leave of Absence Absolving Them of Academic Responsibilities During This Time?"

	Birth Control Devices		Maternity Leave	
	N	%	N	%
Yes	81	91	51	67
No	7	9	25	33
TOTAL	88	100	75	100

C. Student Participation in University Governance

Less than a month before this questionnaire had been sent to the faculty respondents the General Faculties Council met to decide if it would re-align its membership. After the filing of the Committee report, a minority report, briefs by members of the faculty and student body, and lengthy debate, the Council voted in favour of student parity. Two questions appeared in the Faculty Questionnaire concerning this issue. The questions and their responses are given in the following table.

TABLE III

"Students Should have Quantitative Parity on the General Faculty Council" and "Students Should have Qualitative Parity on the General Faculty Council (e.g., voting privileges)."

	Quantitative			Qualitative		
	N	%		N	%	
Strongly Agree	5	5	19%	15	15	44%
Agree	14	14		29	29	
Neither	23	23		19	19	
Disagree	34	34	59%	22	22	37%
Strongly Disagree	25	25		15	15	
TOTAL	101			100		

The first question deals with the concept of having an equal number of representatives from the student body as from the faculty body, but without an equal number of votes. The latter question suggests equal voting privileges. The faculty in this sample, as a whole, rejected the idea of cluttering the Council chambers with bodies possessing a voice but no vote. Yet there was only a very slight majority of faculty respondents who were willing to embrace the measures which GFC had finally enacted.

This does not seem entirely unreasonable. This type of shared authority on campus, of student parity on a major academic decision-making body, can be a threatening thought. Moreover, it is an avant-garde move, one which few other colleges and universities in North America have even begun to contemplate. Small wonder then about this display of caution.

One should note, however, that this survey was taken after the GFC decision but BEFORE the newly constituted Council had had an opportunity to function. It would be safe to predict that faculty attitude concerning student parity will change during the course of the upcoming academic year. In which direction (i.e., more favourable or less favourable) will depend in part on the quality of GFC's decisions.

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APPENDIX I

Chi-square of those in the Sample to Total Faculty (Actual count 1970-71, as of Dec. 1970)

ON CAMPUS ONLY

	Respondents	Faculty*	Total
Agriculture	7	59	66
Arts	28	329	357
Bus. Admin. & Comm.	3	37	40
Dentistry and Dental Hygiene	5	33	38
Education	12	138	150
Engineering	8	84	92
Household Economics	2	20	22
Library Science	1	8	9
Law	1	19	20
Medicine	7	121	128
Nursing	2	21	23
Pharmacy	2	15	17
Physical Education	4	34	38
Rehabilitation Med.	1	14	15
Science	20	246	266
TOTAL	103	1,178	1281

$x^2 = .6416$
df = 14
$P > .99$

* Source: Number of Faculty and Staff in Faculties and Schools - University of Alberta Universities Commission Form UC-O-21, 1970-71 Actual, as prepared by the Office of Vice-President (Academic), University of Alberta

The Equivalence of Full Time Staff rounded to nearest whole number.

APPENDIX I

TABLE II

Crosstabulation of the Year of Birth with the Answer to the Question about Maternity Leave for Students

MATERNITY LEAVE?

Year Born	Yes	No	Undecided	Total
1946	1			1
1945			1	1
1944	1	1		2
1943	1			1
1942	3		1	4
1941	1			1
1940	3		1	4
1939	1	3	1	5
1938	5	1	4	10
1937	3	1	1	5
1936		1		1
1935	6	2		8
1934	2	3		5
1933	1	1	2	4
1932	1	1		2
1931	1	2		3
1930	3		1	4
1929			1	1
1928	2	1		3
1927			2	2
1926	1	2	1	4
1925	4		1	5
1924	1	2		3
1923	2	1		3
1922	1			1
1921	1		1	2
1920		1		1
1918			2	2
1916	1			1
1914	1	2	1	4
1912	2			2
1907	2		1	3
	51	25	22	98

Product moment correlation coefficient: -.03

TABLE III

Year of Birth Crosstabulated With Change in Laws Governing Habit Forming Drugs

Year Born	Yes	No	Total
1946	1		1
1945	1		1
1943	1		1
1942	2		2
1941	1		1
1940	3	1	4
1939	2	3	5
1938	4	2	6
1937	2	3	5
1936	1		1
1935	3	2	5
1934	3	1	4
1933		2	2
1932	2	1	3
1931	1		1
1930	2	1	3
1929	1		1
1928	2	1	3
1927	1		1
1926	2	1	3
1925	2		2
1924	2		2
1923	3		3
1921	1		1
1920		1	1
1914	1		1
1912	1		1
	45	19	64

Biserial Correlation Coefficient: -0.15
Yes = 1, No = 0.

TABLE IV

Year . . .
With Liberalization of the Laws Governing Habit Forming Drugs

Year Born	Yes	No	Total
1946	1		1
1945	1		1
1944		1	1
1943	1		1
1942		2	2
1941	1		1
1940	1	3	4
1939	2	3	5
1938	3	5	8
1937	1	4	5
1936	1	1	2
1935	4	2	6
1934	1	2	3
1933		4	4
1932	1	2	3
1931	1	1	2
1930		2	2
1929		1	1
1928		3	3
1927	1	1	2
1926	1	2	3
1925	2		2
1924		1	1
1923	1	2	3
1921	2		2
1920		1	1
1918	1	1	2
1914		1	1
1913		1	1
1912	1		1
1907		1	1
	28	47	75

Biserial Correlation Coefficient: 0.06

TABLE V

Year . . .
With Change in Laws Governing
the Non-Medical Use of Hallucinatory Drugs

Year Born	Yes	No	Total
1946	1		1
1945	1		1
1942	2		2
1940	2	1	3
1939	2	3	5
1938	3	2	5
1937	2	3	5
1936	1		1
1935	4	2	6
1934	1	2	3
1933		2	2
1932	2	1	3
1931	1		1
1930	1	1	2
1929	1		1
1928	2	1	3
1927	1		1
1926		2	2
1925	1	1	2
1924	1		1
1923	2	1	3
1921	2		2
1920		1	1
1914	1		1
1912	1		1
	35	23	58

Biserial Correlation Coefficient: -0.055

TABLE VI

Year . . .
With Liberalization of Laws Governing the Non-Medical Use of Hallucinatory Drugs

Year Born	Yes	No	Total
1946	1		1
1945	1		1
1944		1	1
1942	1	1	2
1940	1	2	3
1939	2	3	5
1938	1	4	5
1937	2	3	5
1936		1	1
1935	4	1	5
1934		2	2
1933		4	4
1932	1	2	3
1931	1	1	2
1930	1	1	2
1929		1	1
1928	1	2	3
1927	1		1
1926		2	2
1925	1	1	2
1924		1	1
1923	1	2	3
1921	1	1	2
1914		1	1
1912	1		1
1907		1	1
	22	38	70

Biserial Correlation Coefficient: 0.255
Significant at the .05 level.

Honors Report Study Phase II Students and Faculty Opinion

Questionnaires were sent to all honors enrollees, alumni, and general program students as well as students who transfer from honors to general program. In addition, a sample of faculty were sent questionnaires. A substantial majority of alumni, staff, and students, surveyed felt the honors program should be continued. Professors in the Faculty of Arts differ from their colleagues in the Faculty of Science in their perception of the honors program. Science Professors favoured a closer supervision of the course selection of honors students, while Arts Professors did not. Science Professors felt they could identify their honors students in the classroom while Arts Professors felt they could not.

APPENDIX VII

THE HONORS PROGRAM STUDY--PHASE II

STUDENTS AND FACULTY OPINION

Submitted to

The Academic Development Committee

By

Miss Iris Jackson

The Office of Institutional Research and Planning

Edmonton, Alberta

June, 1971

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ACKNOWLEDGEMENTS

My sincere thanks for Dr. David Otto of the Office of Institutional Research and Planning for his statistical consultation and contributions to the summarization, and to Mr. Peter Haney for his critical review of the draft manuscript. I would also like to thank Dr. W. A. Preshing for his encouragement, and Miss Deborah Wener, Miss Judy Brunt, Miss Joan Charlton, and Miss Iris Olynyk for their assistance.

ABSTRACT

Questionnaires were sent to all Honors enrollees, all Honors alumni, all Honors withdrawals, a sample of General Program students, and a sample of faculty regarding their opinion of the Honors Program. The questionnaires were designed to determine the degree of agreement with facets of the Honors Program. It was found that:

1. A substantial majority of alumni, staff, and students that responded to the questionnaire felt that the Honors program should NOT be eliminated.

2. Students in the Honors program, General Program students, and students that withdrew from the program basically had a common attitude towards many aspects of the Honors program. Few significant differences were observed.

3. Professors in the Faculty of Arts differed from their collegues in the Faculty of Science in their perception of the Honors Program. Professors in the Faculty of Science favored a closer supervision of course selection of Honors students while professors in Arts did not. Moreover, Science professors saw their Honors students as being more visible (i.e., identifiable) in the classroom than did Arts professors.

4. The academic staff surveyed felt a clear distinction exists between the Honors program and the Four-Year Special Degree Program.

THE HONORS PROGRAM STUDY--PHASE II

STUDENTS AND FACULTY OPINION

Introduction:

The Academic Development Committee requested the Office of Institutional Research and Planning to investigate the Honors Program at the University of Alberta. The Office of Institutional Research and Planning's researchers examined the nature of the Honors Program as it presently exists, its origin, and its future in relation to the four-year Special Degree program now in operation or about to be initiated.

In exploring the Honors program, the Office of Institutional Research and Planning's researchers sought to learn something about: (a) the characteristics and attitudes of Honors students; (b) the attitudes of Honors alumni; (c) the views of those who withdraw from the Honors program; (d) the opinions of the General Program students; and (e) the attitudes and intentions of department administrations that structure the program.

This report deals with the opinions expressed by students and faculty respondents to the questionnaires.

Methodology:

Questionnaires were sent to all Honors enrollees, all Honors alumni, all Honors withdrawals, a sample of General Program students, and a sample of faculty. (See Appendices A, B, C, D and E for the questionnaires used. The questions were designed to determine the degree of agreement with a number of statements about the Honors Program and about the student enrolled in it. Analysis included a frequency count of responses in five categories from "strongly agree" through to "strongly disagree", the determination of the mean, variance, standard deviation, the correlation coefficient, chi-square analysis, and one way analysis of variance, as well as a Scheffe multiple comparison of means, and a Newman-Keuls comparision between ordered means.

Observations:

The Honors enrollees, Honors withdrawals, General Program students, Alumni, and Faculty are basically in agreement on many questions. However, there are a few questions that show interesting differences.

Student Visibility

The first is the question of the visibility of Honors students in the classroom. That is, do the other students, and the professor know which students are in the Honors program? All groups of students tend to disagree and believe that the Honors students are not distinguishable from other students in the classroom. Faculty, on the other hand, generally agree that Honors students are highly visible. ($X^2 = 64.65$, df = 4, $p < .001$.) There is a significant difference between Arts and Science faculty respondents. Arts faculty tend to state that Honors students are not highly visible, while Science faculty tend to state that they are. ($X^2 = 64.63$, df = 4, $p < .0000$.) Generally, faculty do not make a point of finding out who in their classes are Honors students. Significantly more Arts Faculty make note of who their Honors students are than Science Faculty ($X^2 = 22.197$, df = 4, $p < .002$.) Perhaps Arts Faculty notice Honors students in their classes because the students are not discriminable by scholastic standings. This is perhaps corroborated by the small, insignificant tendency of Arts Faculty to disagree, and Science Faculty to agree with the idea that a clear scholastic distinction exists between Honors and General Program students Science faculty members have a tendency to regard Honors students as academically superior, while Arts faculty members do not. The students do not offer any clear pattern of response to this question.

Discussion of Visibility Variable

The question of why Science Honors students are known by the Science faculty while Arts Honors students tend to remain unknown has a number of possible explanations, many of which are refuted by the discussions held with department representatives (reviewed in the first report). If the number of Honors students per department in the Faculty of Science was significantly less than the corresponding ratio in the Faculty of Arts, it could be assumed that more Science professors would find the task of remembering the Honors students in their department easier than it would be for Arts professors. But, there are significantly more Science Honors students per department (average 61) than there are Arts Honors students per department (average 16), so this explanation must be discarded. Perhaps Science Honors students are more aggressive in pursuing their field of interest and this characteristic results in more staff-student contact then that of the presumably more independent Arts student. At present, there is no way of testing this rather ipsative construct. Science Honors students do generally have more class and laboratory hours than Arts Honors students so that staff-student contact might be greater in Science than in the Arts Faculty. The laboratory itself is more conducive to a dyadic staff-student contact. However, laboratory classes usually are handled by GTA's. There may be more hierarchical than peer group interaction in the Sciences so that the Honors students gain intellectual stimulation from their professors rather than from their classmates. This is corroborated to some extent with the finding that Science students tend to agree that their undergraduate status interfered with forming friendships with General Program students. Arts students do not seem to have this problem. Another possible explanation for the higher visibility of Honors Science students is that Science might set up more segregated classes exclusively for Honors students than does Arts. This was not found to be the case since a small number of departments in either faculty offers the Honors student exclusive classes. One explanation that seems consistent with all findings is that Science faculty members tend to regard their Honors students as intellectually superior to General Program students. Arts faculty members do not agree, perhaps because there is not a large difference in academic achievement between Arts Honors students and Arts General Program students.

In conclusion, we know that more Science Faculty professors say they can identify the Honors student than do Arts Faculty professors, but the reason (s) why remain an enigma.

Differential Treatment

All the Students in the study were asked if they felt that Honors students were generally treated differently than General Program students. There was a significant difference among student respondents from different faculties. Science students tend to disagree with the idea, while Arts students tend to agree. The General Program students tend to think that Honors students are NOT treated any differently while students who withdraw from the Honors Program give an evenly divided opinion. Honors students tend to think that they are more favourably treated because they are better known than other students. However, some Honors students commented that, because they are better known, more was expected of them.

Most faculty respondents did not express an opinion on which type of student was more challenging to teach. There was a tendency to disagree with the view that Honors students are more challenging. Perhaps teaching, _per se_, is the challenge. In other words, some faculty may reason that General Program students are less knowledgeable about the material and, consequently, the instructor must give more attention to his presentation. On the other hand, some faculty may feel that the Honors student, being more familiar with the material and presumably better motivated and/or more intelligent than the General Program student, will raise provocative questions which in turn will lead to more stimulating discussions. In general, members of the academic staff indicated that they would like to become more involved with the Honors students. Science faculty members agreed to this statement significantly more often than did Arts faculty. (X^2 = 22.20; df = 4; $p < .0002$.

Supervision

Another difference in opinion occurs when students and faculty are asked if they agree that Honors students should be closely supervised when choosing courses. All Science students tend to agree to close supervision, while all Arts students tend to disagree. (Honors enrollees: X^2 = 13.99;

df = 4; $p < .01$; General Program students: $X^2 = 23.72$; df = 12; $p < .05$; Withdrawals: $X^2 = 12.30$; df = 4; $p < .05$) Both Arts and Science faculties were neutral with regard to supervision of course selection for Honors student, although there is a slight tendancy for the Science faculty to agree that the students should be closely supervised. This may be due to the concept of incremental learning in the Sciences which may be more prevelant than in the Arts.

Social Awareness

Honors students tend to think of themselves as being more aware than other students are of the administration of their department and the university. However, other students disagree and faculty simply could not assess how aware their students are of the administration.

Most (87 percent) of the currently enrolled Honors students who responded to the questionnaire disagreed that being an Honors student interfered with forming friendships with General Program students. However, more Science students agreed that beeing an Honors student does interfere with making friends than Arts students.

Financial and Job Problems

When asked if they would like to give fourth year Honors students some form of financial inducement to remain as undergraduates, 66 percent of the responding faculty agreed. Fourth-year Honors students often find themselves with severe financial problems, and as some departments offer qualifying students some financial assistance, it is more practical from an economical point of view to apply to graduate school than to finish the four-year degree. However, 50 percent of the faculty respondents agreed that Honors students have better job opportunities than General Program students. A large portion of faculty (40 percent) do not know if this is so. Students, however, realize that, in this period of high unemployment, jobs are very scarce for graduates from any program.

Selection for Graduate School

Fifty-six percent of the faculty respondents agreed or strongly agreed that the Honors Program provides a good device for selection of graduate students, because a student that has done well in an undergraduate Honors Program will likely do well in a graduate course. However, one half of the Engineering Faculty respondents (N = 4) disagreed. Perhaps this professional school staff regards practical experience as a more important predictor of graduate success in an applied field.

Worth of the Honors Program

All groups agreed that the Honors Program is worthwhile and of value. It is significant to note that even those who withdrew from the Honors Program felt that it should be maintained. A majority of all individuals surveyed disagreed that it should be eliminated. Seventy-nine percent of the currently enrolled Honors students who responded, fifty percent of the General Program students, sixty-six percent of those students who had withdrawn from the Honors Program, and seventy percent of the faculty respondents agree that it should be retained. It should be noted that Honors students and Alumni agree most strongly with the retention of the program, General Program students, and withdrawals agree the next most strongly, and faculty members have the greatest variance in responses, although they still generally agree that the program is worthwhile.

Most faculty respondents agree or strongly agree that the Honors Program should be maintained since it provides a challenge to brighter students. There are two factors acting in this question: one is that it should be maintained and the second is that it provides a challenge for brighter students. This may be why this question so clearly and accurately discriminates in favour of retaining the program. There is no clear student response pattern to this question.

Sixty percent of the faculty respondents tended to disagree that the Honors Program serves the same purpose as the Four-year Special Degree program. It should be noted that the Science faculty respondents, that have had greater experience with the Special program than the Arts faculty, more strongly regard it as being different than the Honors program. In the departments where the Special program is about to be initiated, the Honors program generally has been revised to make it more academically demanding than the four-year Special Degree program.

Staff Seniority

It should be noted that both the number of years a faculty member has been on campus, and the rank that the faculty member holds are insignificant variables in the determination of opinions about the Honors program and its students.

CONCLUSIONS AND RECOMMENDATIONS

This study revealed that:

1. A substantial majority of alumni, staff and students that responded to the questionnaire feel that the Honors program should not be eliminated.

2. Students in the Honors program, General Program students, and students that withdrew from the Honors program basically have a common attitude concerning various facets of the Honors program. Few significant differences have been observed.

3. The perception of the Honors program differs to some extent between professors in the faculties of Art and Science. Professors in the Faculty of Science lean more to close supervision of course selection than do professors in Arts. Also, Science professors see their Honors students as more visible in the classroom than do Arts professors. The latter group has trouble identifying students in their classes.

4. The Academic staff surveyed felt that a clear academic distinction exists between the Honors program and the four-year Special Degree program.

It appears that there will be little or no redundancy in having two four-year programs in Arts and Science as most faculty and students have a clear, though not verbally defined, idea of the differences between the four-year Special Degree program and the Honors degree. Generally, students choose the Honors degree for its challenge and as a means of specialization. However, there is a tendency to avoid the "Honors" label when it is regarded as intellectual snobbery. Students like to view the education system as democratic, and one in which all students could achieve equal academic standing if they so choose. Yet they acknowledge that the four-year degree will serve the student who wishes to specialize, but not commit himself to the extra academic effort required by the more rigorous Honors program.

APPENDIX A

HONORS CURRENTLY ENROLLED QUESTIONNAIRE

HONORS STUDENT QUESTIONNAIRE

1. Name ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
Surname

☐☐☐☐☐☐☐☐☐☐ ☐ 2. ☐☐☐☐☐☐
First Middle Initial Identification No.

3. Faculty: ☐ Arts ☐ Science ☐ Other

4. Program Specialization (e.g.,Economics, Physics) ______________________ ☐☐

①

Please answer the following questions by checking the appropriate box.
S = strongly agree, s = agree, n = undecided or neutral, d = disagree and D = strongly disagree.

	S	s	n	d	D
5. I feel that the Honors program serves a purpose that cannot be filled by any other program	☐	☐	☐	☐	☐
6. I believe that Honors students should be closely supervised in their course selection	☐	☐	☐	☐	☐
7. I find that Honors students are highly visible in the classroom (that is, other students know which of their classmates are Honors students)	☐	☐	☐	☐	☐
8. I think that the Honors program should be eliminated	☐	☐	☐	☐	☐
9. It has been my experience that professors treat Honors students differently from general program students	☐	☐	☐	☐	☐

9a. Check one: They are treated: More Favorably ☐
Less Favorably ☐

	S	s	n	d	D	
10. Being an Honors student interfers with forming friendships with general program students	☐	☐	☐	☐	☐	22
11. Generally, Honors students are more aware of the governance of their department and the university than general program students	☐	☐	☐	☐	☐	
12. Generally, a clear scholastic distinction exists between Honors students and general program students	☐	☐	☐	☐	☐	
13. I believe fourth year Honors students are at a great disadvantage because they are still undergraduate and not graduate students	☐	☐	☐	☐	☐	
14. What, if any, privileges or advantages make being an Honors student worthwhile?	☐	☐	☐	☐	☐	

____

____

____

____

____

☐ 27
☐
☐
☐

15. What disadvantages and/or obligations make being an Honors student a drag?

____

____

____

____

____

☐ 31
☐
☐

THANK YOU FOR YOUR HELP

APPENDIX B

HONORS ALUMNI QUESTIONNAIRE

HONORS PROGRAM QUESTIONNAIRE

I am presently living at: ______________________________________
(Street)

____
(City) (Province)

⑥

Please check the appropriate box.

	Yes	No
1. Did you write a thesis or dissertation during your final year?	☐	☐ 16
2. Was the Honors program your first choice of program in the university?	☐	☐
3. Have you attended graduate school since you graduated?	☐	☐
4. If you attended graduate school, did you enter the same field in which you received your honors degree?	☐	☐
5. If you have not attended graduate school, do you plan to do so in the near future?	☐	☐
6. Did you find that your Honors degree was recognized in the business world?	☐	☐
7. Did your degree help you find the type of job that you wanted?	☐	☐

THE FOLLOWING SECTION DEALS WITH YOUR IMPRESSIONS OF THE ACADEMIC COMMUNITY. PLEASE RESPOND TO EACH STATEMENT BY CHECKING THE APPROPRIATE BOX, WHERE S = strongly agree; s = agree, n = neither agree nor disagree; d = disagree and D = strongly disagree.

	S	s	n	d	D	
8. I feel that the Honors program serves a purpose that cannot be filled by another program	☐	☐	☐	☐	☐	28
9. I believe that Honors students should be closely supervised in their course selection	☐	☐	☐	☐	☐	
10. I feel that the Honors program should be eliminated	☐	☐	☐	☐	☐	
11. Generally, I agree that Honors students are more conservative than general program students	☐	☐	☐	☐	☐	
12. I feel that the Honors program gave me something of value that I would not otherwise have obtained from any other program	☐	☐	☐	☐	☐	

If you agree, what did you receive?

____

____

____

☐ 28
☐

	S	s	n	d	D
13. I find that Honors students are highly visible in the classroom (that is, other students know which of their classmates are Honors students)....................	☐	☐	☐	☐	☐
14. Being an Honors student interfered with forming friendships with general program students	☐	☐	☐	☐	☐
15. It has been my experience that professors treat Honors students differently than general program students	☐	☐	☐	☐	☐

Check one: They are treated: More Favourably ☐

Less Favourably ☐

S s n d D

16. Generally, Honors students are more aware of the governance of their department and the university than general program students .... ☐ ☐ ☐ ☐ ☐ 34

17. Generally, a clear scholastic distinction exists between Honors students and the general program students .... ☐ ☐ ☐ ☐ ☐

18. I believe fourth year Honors students are at a great disadvantage because they are still undergraduates and not graduate students .... ☐ ☐ ☐ ☐ ☐

19. What, if any, privileges or advantages made being an Honors student worthwhile?

____

____

____

____

____

__ 37

20. What disadvantages and/or obligations made being an Honors student a drag?

____

____

____

____

____

THANK YOU FOR YOUR HELP

APPENDIX C

HONORS WITHDRAWALS QUESTIONNAIRE

HONORS PROGRAM QUESTIONNAIRE

1. Name

Surname

First M.I.

2. 6 Identification No.

3. Faculty: 18 ☐ Arts ☐ Science ☐ Other

4. I was enrolled in the Honors program of the Department of _______________

5. I am presently living at ____
(Street)

____
(City) (Province)

③

Please answer the following questions by checking the appropriate box. S = strongly agree, s = agree, n = undecided or neutral, d = disagree and D = strongly disagree.

	S	s	n	d	D
6. I feel that the Honors program serves a purpose that cannot be filled by another program	☐	☐	☐	☐	☐ 16
7. I believe that the Honors students should be closely supervised in their course selection	☐	☐	☐	☐	☐
8. I found that Honors students were highly visible in the classroom (that is, other students knew which of their classmates were Honors students)	☐	☐	☐	☐	☐
9. I feel the Honors program should be eliminated	☐	☐	☐	☐	☐
10. It has been my experience that professors treated Honors students diferently than they did general program students	☐	☐	☐	☐	☐

10a. Check one: Honors students were treated:

More Favorably	☐ 21
Less Favorably	☐

	S	s	n	d	D
11. General program students are more aware of the governance of their department and the university than Honors program students	☐	☐	☐	☐	☐
12. It is my opinion that most Honors students intellectualize their problems to avoid dealing directly with them	☐	☐	☐	☐	☐
13. Generally, a clear scholastic distinction exists between Honors students and general program students	☐	☐	☐	☐	☐
14. I believe that fourth year Honors students are at a great disadvantage because they are still undergraduates not graduate students	☐	☐	☐	☐	☐

	Yes	No
15. Was the Honors program your first choice of program in the University?	☐	☐
16. Did you receive a degree after withdrawing from the Honors program?	☐	☐
17. Have you attended graduate school since you dropped out of the Honors program?	☐	☐
18. If you attended graduate school, did you enter in the same field as your Honors program?	☐	☐
19. Do you ever plan to obtain the Honors degree that you abandoned?	☐	☐
20. Did you have any difficulty maintaining the average required of Honors students by your department?	☐	☐
21. Did you leave school when you withdrew from the Honors program?	☐	☐

22. If so, what did you leave school to do?

	Yes	No
Do you feel that you made the right decision?	☐	☐

Explain.

THANK YOU FOR YOUR HELP

APPENDIX D

GENERAL PROGRAM STUDENTS QUESTIONNAIRE

GENERAL STUDENT QUESTIONNAIRE

ON THE HONORS PROGRAM

1. Name
Surname

First M.I.

2. 6 Identification No.

3. Faculty: 12 ☐ Arts ☐ Science ☐ Other

4. Program Specialization (e.g., Anthropology, Classics, etc.) ______________ 14

(2.)

Please answer the following questions by checking the appropriate box. S = strongly agree, s = agree, n = undecided or neutral, d = disagree and D = strongly disagree.

	S	s	n	d	D
5. I feel that the Honors program serves a purpose that cannot be filled by any other program	☐	☐	☐	☐	☐ 16
6. I believe that Honors students should be closely supervised in their course selection	☐	☐	☐	☐	☐
7. I find that Honors students are highly visible in the classroom (that is, other students know which of their classmates are Honors students)	☐	☐	☐	☐	☐
8. I think the Honors program should be eliminated	☐	☐	☐	☐	☐
9. It has been my experience that professors treat Honors students differently from general program students	☐	☐	☐	☐	☐

9a. Check one: They are treated: More Favorably ☐

Less Favorably ☐

	S	s	n	d	D
10. General program students are more politically active than Honors students because they don't have as much to lose (as far as department retribution goes)	☐	☐	☐	☐	☐ 22
11. Honors students are more aware of the governance of their department and the university than general program students	☐	☐	☐	☐	☐
12. Generally, a clear scholastic distinction exists between Honors students and general program students	☐	☐	☐	☐	☐
13. I feel that it would be more advantageous to go to graduate school with a three year general degree than to spend four years as an undergraduate	☐	☐	☐	☐	☐
14. I would like to be an Honors student, but I can't, or don't wish to, maintain the average required of Honors students	☐	☐	☐	☐	☐
15. I can not afford (financially) the fourth year as an undergraduate	☐	☐	☐	☐	☐
16. I can not spend four years on the campus because I am not emotionally suited to this type of life	☐	☐	☐	☐	☐
17. I don't believe that Honors students are any brighter than general program students, they just work harder	☐	☐	☐	☐	☐

18. I plan to go to graduate school.

Check one: here ☐

at another university ☐

19. Do you plan to go to graduate school in the same field as your major?

yes ☐ no ☐

20. How many of your friends are currently graduate students? ________ ☐ 32

21. How many of your friends are currently Honors students? __________ ☐

THANK YOU FOR YOUR HELP

APPENDIX E

FACULTY QUESTIONNAIRE

The following questions deal with your views on the Honors program. Please circle the appropriate letter where S = strongly agree; s = agree; n = neutral or undecided; d = disagree and D = strongly disagree.

IF YOUR FACULTY HAS NO HONORS PROGRAM ANSWER THIS QUESTION.

1. If my faculty were to consider an Honors program, I would actively support it. S s n d D

IF YOUR FACULTY HAS NO HONORS PROGRAM, PLEASE ANSWER THE REST OF THE QUESTIONS WITH THE HONORS STUDENTS YOU KNOW FROM OTHER DEPARTMENTS IN MIND.

2. I feel that Honors programs serve a worthwhile purpose. S s n d D

3. It is easy to spot Honors students in my classes. S s n d D

4. I feel that the Honors students should be closely supervised in their course selections. S s n d D

5. General program students are more challenging to teach than Honors students. S s n d D

6. I feel that a clear scholastic distinction exists between the Honors students and the general program students. S s n d D

7. I think that the Honors program should be eliminated. S s n d D

8. I usually take note of who the Honors students are in my class. S s n d D

9. Generally, Honors students tend to be less aware of the administration of the University than general program students. S s n d D

10. I would like to be more directly involved with the Honors students. S s n d D

11. I think fourth-year Honors students who have done well in their first three years should be given financial assistantship. S s n d D

12. It is my opinion that the four-year program serves the same purpose as the Honors program. S s n d D

13. I believe that Honors graduates have better job opportunities than the general program students. S s n d D

14. I think the Honors program should be maintained as it provides a challenge for the brighter students. S s n d D

15. I think the Honors program provides a device for selecting good graduate students because those that do well in the Honors program will do well in graduate work. S s n d D

COMMENTS:

Thank You

The Graduate Teaching Assistant at the University of Alberta

Many facets of the Graduate Teaching Assistants' academic and personal life were surveyed: his perceptions of financial need, his feelings of both satisfaction and dissatisfaction resulting from disappointment, the nature of existing rapport between supervising professor and the Graduate Teaching Assistant, and finally the degree of perceived participation the Graduate Teaching Assistant adds when certain administrative aspects of the courses he helps teach.

Although forbidden by university regulation, 19 of the 379 Graduate Teaching Assistants current hold jobs outside the University. All but 10 of the 144 married Graduate Teaching Assistants the survey indicated they felt it was necessary for their spouses to work in order to make ends meet. A majority of the responding Graduate Teaching Assistants felt the supervisor was doing a good job. Graduate Teaching Assistants felt their teaching influence was strong in the day to day evaluation of student progress but less strong relative to course content, syllabi, and items on examinations.

APPENDIX VIII

UNIVERSITY OF ALBERTA

THE GRADUATE TEACHING ASSISTANT AT THE UNIVERSITY OF ALBERTA

BY

DAVID OTTO

OFFICE OF INSTITUTIONAL RESEARCH AND PLANNING

MARCH, 1972

As a member of the research staff in the Office of Institutional Research and Planning who serves as resource person to the Committee to Investigate Teaching I have, from time to time, been exposed to some tantalizing research problems. When the topic of examining specific aspects of the life of the Graduate Teaching Assistant at the University of Alberta was suggested to me, I thought it would be a beneficial undertaking for this university in particular, and for all of higher education in general. It should be noted that while this present study was triggered by my involvement with CIT, the project is my own.

In March of 1971 questionnaires were sent to the Graduate Teaching Assistants currently on payroll. The objectives of the study were to learn how the GTA sees himself as a prospective teacher and as a struggling graduate student. Is he able to support himself? Can he manage both the course work in his own program and the demands of his Assistantship? Is he happy with his life as a graduate student?

I am indebted to Misses Iris Jackson and Judy Brunt for patiently checking over the returned questionnaires. Credit goes to Dr. R. W. F. Wilcocks for initially posing the problem, and commenting on the first draft of the questionnaire. Finally a special word of thanks to Dr. W. A. Preshing and the other members of the Office of Institutional Research and Planning for support in this endeavor.

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II. How clear are you about the limits of your responsibility in your present appointment . . ? 2

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IV. "Below is a list of the various decisions you . . may be asked to make. Please indicate the amount of voice or influence you feel you currently have in each of the following situations . . (where) 1 = total voice, 2 = strong voice, . . ., 5 = no voice at all . ." 5

V. "To what degree do you feel that the work which you do as a . . . G.T.A. is professionally rewarding?" 6

VI. "How satisfied are you with your present appointment . . when you consider the expectation you had for . . (it)?". 6

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SYNOPSIS

Many facets of the G.T.A.'s academic and personal life were surveyed: his perception of financial need, his feelings of both satisfaction and dissatisfaction resulting from his appointment, the nature of existing rapport between the supervising professor and the G.T.A. and finally the degree of perceived participation the G.T.A. has in certain administrative aspects of the course he helps teach. The following observations emerge from this study:

Financial Need

Nineteen of the 379 G.T.A.'s who answered the questionnaire indicated they currently held jobs outside the University. In addition, many married G.T.A.'s (134 of the 144 G.T.A.'s in the survey) indicated that they felt it was necessary for their spouses to work in order to " . . make ends meet . .".

Satisfaction with the Position

Two categories of satisfaction were studied: 1) individual feelings of satisfaction as a result of his position and 2) perceptual satisfaction resulting from the status of the position itself.

For most of the G.T.A.'s (252 of the 373 who responded), their appointment proved to satisfy their concepts of appointment. A large number of G.T.A.'s (126 of 365) were neither satisfied nor dissatisfied with any personal reward feelings stemming from their appointment, which suggests that they tend to view the position as "just a job."

It is a special kind of "job," however, because it is embedded in the career aspirations of most of the G.T.A.'s. Eighty percent (80%) of the respondents viewed their appointment as an opportunity to develop professionally as well as an opportunity for personal intellectual improvement. (299 of 370).

On the other hand, any gainful employment will interfere with one's studies; and a fair number of the G.T.A.'s in this study (133) felt that they do not have the time to bring their own academic work up to the standard of excellence they feel they can obtain.

Supervision

Good rapport exists between most of the G.T.A.'s and their supervisors. Not only does the communication between superior and subordinate appear to be good, but many of the G.T.A.'s indicate that they felt free to approach and discuss course-related problems with their supervisors.

Participation

All the G.T.A.'s in the study indicated that they were able to excercise a moderate amount of influence in the content of the course they helped teach. The G.T.A.'s appear to have a good deal of influence in the day-to-day evaluation of their students' progress, but little voice in the composition of mid-term and final examination. As most G.T.A.'s are given the task of grading mid-term and finals, they seem to feel that their judgment was actively solicited prior to the submission of grades to the Registrar's Office.

THE GRADUATE TEACHING ASSISTANT AT THE UNIVERSITY OF ALBERTA

I. INTRODUCTION

If the Committee to Investigate Teaching is to find a means of improving teaching it seems logical that one of its foci be on the apprenticeship system of teacher training. Throughout the university, young graduate students are tutored in the art of teaching by professional members of their discipline.

The Graduate Teaching Assistanship performs a vital role in the scheme of advanced learning. First, it provides the graduate student with an opportunity to gain some insight into the teaching profession. Second, it offers some financial support to the graduate while he is seeking an advanced degree. Finally, this division of academic labor provides a needed service to the university as a whole by permitting senior staff members more time to devote to tasks only they are qualified to undertake.

Two major areas of the Graduate Teaching Assistantship were studied: 1) the rapport between supervisor and subordinate, and 2) the graduate student's own impression of his assistantship.

II. SUPERVISION

Without evidence to the contrary, one must presume that the young graduate student is on the lower end of the master teacher-apprentice dyad in higher education. How well he learns this trade will be contingent, in part, upon how well he is supervised. Three elements of this relationship were examined: clarity and detail of supervisory instructions, accessibility of the supervisor and the G.T.A.'s knowledge of the limits of his responsibility.

The Nature of the Supervisor's Messages

One hundred and eighty-five of the G.T.A.'s report that their supervisors give general instructions.[1] Two hundred and five of the G.T.A.'s report having no difficulty comprehending their supervisor's instructions.

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[1] Early in February the Administrative Data Processing Office was asked to provide a print-out and campus address labels of all G.T.A.'s on current file of academic employees. 605 G.T.A.'s were so identified. The Questionnaire (see Appendix I) was mailed to each G.T.A. 379 usable questionnaires were returned, a return rate of 63%. See Appendix II for Tables on the G.T.A.'s percentage of appointment, the faculty his field is located in, degree sought and his current graduate studies status.

TABLE I

"How well does your current supervisor make clear what he expects of you in your work . . ?"

	A			B*		
1.	No instructions whatsoever	16	1.	Very ambiguous instructions	5	
2.	General instructions	185	2.	Ambiguous	8	
3.	Somewhat detailed	81	3.	Occasionally ambiguous	67	
4.	Very detailed	37	4.	Clear	177	205
			5.	Very clear	28	
	TOTAL	319			285	
	Mean	2.43			3.75	
	S.d.	0.76			0.73	

* the 6th item in B has been deleted

This is understandable. Members of the academic community tend to view their colleagues as competent individuals, and consequently "direction" in the management sense is less structured and less rigid than what one might expect to find in other social organizations (e.g., business and government). The typical academician is presumed to possess more than average acuity, therefore it is reasonable to expect two individuals in the same field, one senior and the other junior, to communicate with one another and be understood without going into excessive detail.

This last point is corroborated by the large number of G.T.A.'s (200 or 67%) who are quite clear as to where the limits of their responsibilities lie.

TABLE II

How clear are you about the limits of your responsibility in your present appointment . . ?

1.	Not at all clear	5	G.T.A.'s	
2.	Not too clear	20		Mean = 3.78
3.	Fairly clear	74		S.d. = 0.91
4.	Quite clear	134	200	
5.	Very clear	66		
	TOTAL	299		

The Availability of the Supervisor

Recently the literature on higher education has attacked the "absent professor". Many undergraduate students complain, so the reports go, that the professor is never available for consultation, even during posted office hours. Because professors also supervise G.T.A.'s, it seems reasonable to assume that the G.T.A. may lodge the same complaint. This is not the case at the University of Alberta.

Two hundred and fifty of the 337 responding G.T.A.'s (74%) declare their supervisor is " ... readily available and easy to contact ...". Two hundred and ninety-one G.T.A.'s (88%) say he is willing to discuss a work-related problem

TABLE III

"From a purely mechanical point of view, how available is your current supervisor . .?"

1.	He is very hard to get to see	12	G.T.A.'s
2.	He is available, but not always easy to meet with	75	
3.	He is readily available and easy to contact	250	
	TOTAL	337	

"If you have a problem arising from the work you are doing as an assistant, are you willing to discuss it with your supervisor . . ?"

1.	I am willing, but my supervisor cannot be bothered	6	G.T.A.'s
2.	I am willing and my supervisor is available to discuss the problem with me	291	
3.	I am reluctant because my supervisor cannot be bothered	0	
4.	I am reluctant to talk to my supervisor for reasons other than those given above	34	
	TOTAL	331	

One must conclude that rapport between supervisor and G.T.A. appears commendably good.

Participation in Decision-Making

One ingredient in this excellent rapport could be the degree of influence the G.T.A. feels he has when working with his supervisor. Rensis Likert (1961) is among the growing number of management psychologists[2] who have concerned themselves with ways to motivate subordinates. In a recent study of teaching assistants (Otto, 1969) Likert's "Participative Management" style in one department showed a group of G.T.A.'s who are extremely satisfied with the appointment despite their reporting that they worked more hours per week than the G.T.A.'s in the eight other departments studied. One of the discerning variables which separated these G.T.A.'s from others was the great amount of participation they were able to have in the determination of the courses they taught. According to the professor who supervised most of the G.T.A.'s in this department, the G.T.A.'s had a universal reading list containing some thirty items. Ten of these items were required, but the G.T.A. was free to choose from among any of the remaining twenty. The only requirement was that each G.T.A. must present his prepared syllabus to his fellow G.T.A.'s in a teaching seminar, explain the reason for his choice and defend his syllabus. The supervising professor remarked that discussions in these seminars became so intense that he occasionally had to intervene in order to maintain order. Committed to his course in this manner, the G.T.A. willingly expended extra efforts to achieve its success.

These same "participation in decision-making" questions were used here. (See Q. 22 (c), p. 9, Appendix I.)

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[2] See, for example, Blake & Mouton, 1964; Lesieur, 1959; Marrow, et al, 1967; Likert, 1961; McGregor, 1960; Herzberg, 1966; and Gellerman, 1963.

TABLE IV

"Below is a list of the various decisions you . .
may be asked to make. Please indicate the
amount of voice or influence you feel you currently
have in each of the following situations . . (where)
1 = total voice, 2 = strong voice, . . ., 5 = no
voice at all . . "

	Degree of Voice							
	1	2	3	4	5	Total G.T.A.'s	Average Voice	S.d.
The content to be covered in your particular sections or labs	20	69	98	67	60	314	3.25	1.00
The selection of readings and materials	28	73	82	62	70	315	3.25	1.27
The composition of quizzes, paper topics, etc.	55	81	70	42	61	309	2.91	1.38
The composition of mid-term and final exams	44	53	55	42	117	311	3.43	1.48
The determination of the students' final grades	44	70	73	76	59	312	3.11	1.31

All the G.T.A.'s in the study indicated that they were able to excercise a moderate amount of influence in the content of the course they helped teach. The G.T.A.'s appear to have a good deal of influence in the day-to-day evaluation of their students' progress, but little voice in the composition of mid-term and final examination. As most G.T.A.'s are given the task of grading mid-term and finals, they seem to feel that their judgement was actively solicited prior to the submission of grades to the Registrar's Office.

These statistics in Table IV are of G.T.A.'s in all parts of the University. One's intuitive impression is that the parameters of the G.T.A.'s responses in different departments on campus will vary noticably, depending on the particular management style used. This area could bear further exploration.

III. THE G.T.A.'s OWN IMPRESSION OF HIS APPOINTMENT

Examining the degree of supervision given the G.T.A. was only one part of this study. It was hypothesized that the G.T.A. may have some psychological rewards associated with his appointment other than those derived from working with his supervisor. Nine possible psychological rewards emanating from the assistantship were examined. These nine have been divided into two broad categories: (1) those rewards associated with the individual's own feelings about his assistantship and (2) those rewards the G.T.A. saw resulting from the nature of the appointment itself.

One's Own Feelings

Individual G.T.A. feelings of reward were measured in his expression of satisfaction or dissatisfaction with his professional development as a G.T.A. (Q. 2, p. 2, Appendix I); his satisfaction with the appointment compared to his expectation of what the appointment meant (Q. 3, p. 2, Appendix I) and finally his feelings of personal reward as a result of being a G.T.A. (Q. 18, p. 7, Appendix I). Eighty percent of the respondents (299 / 370) indicated they derived some degree of professional reward from their appointment.

TABLE V

"To what degree do you feel that the work which you do as a . . . G.T.A. is professionally rewarding?"

1. Very unrewarding	13	G.T.A.'s		
2. Unrewarding	53			
3. Somewhat rewarding	131	299		Mean = 3.37
4. Rewarding	113			S.d. = 1.02
5. Very rewarding	55			
TOTAL	370			

For a majority of G.T.A.'s in the study, the appointment proved to be what they had expected it to be. Two hundred and fifty-two (or 72%) of the 373 G.T.A.'s who answered this question are satisfied with what the appointment provided.

TABLE VI

"How satisfied are you with your present appointment . . when you consider the expectation you had for . . (it)?"

1. Very dissatisfied	13	G.T.A.'s		
2. Dissatisfied	24			Mean = 3.73
3. Neither satisfied or dissatisfied	84			S.d. = 0.96
4. Satisfied	179	252		
5. Very satisfied	73			
TOTAL	373			

Feelings of personal rewards among the G.T.A.'s in the study are less striking. There is an almost perfect textbook frequency distribution of responses to this question. Most G.T.A.'s (126 of 365; or 34%) are "neither satisfied nor dissatisfied" with their appointment. Slightly more G.T.A.'s are satisfied (N = 98) than dissatisfied (N = 91) with their appointment; and as many G.T.A.'s are extremely dissatisfied as are extremely satisfied (N = 25 each).

TABLE VII

"To what degree do you feel that the work which you are now doing as a G.T.A. . . is personally rewarding?"

1. Very unrewarding	25	G.T.A.'s	
2. Unrewarding	91		Mean = 3.01
3. Neither	126		S.d. = 1.03
4. Rewarding	98		
5. Very rewarding	25		
TOTAL	365		

The large number of G.T.A.'s who are devoid of explicit feelings of personal reward eminating from their appointment would seem to suggest, as Wilson has done[3], that the appointment is seen as a financial means to an end rather than a scholarly end unto itself. What advantages are associated with the status a G.T.A. enjoys?

Perceived Status

The answer to this query was provided by the responses to Question 4, of the questionnaire (see p. 6, Appendix I).

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[3] Wilson's comment was: "In view of the nature of these findings in reference to the lengthening factors it may be inferred that, with respect to their relationship to the completion of doctoral requirements, teaching and research assistantships were perceived by graduates as having had somewhat different functional roles; hypothetically the role of the teaching assistantship was perceived as sustaining (financially) but not directly instrumental whereas the research assistantship was perceived as both sustaining and directly instrumental, particularly with respect to development and implementation of a thesis project." (Wilson, 1965, p.92)

TABLE VIII

"Below are some of the advantages which holding an appointment in one's department offers. Please rank each according to its importance to you, where 1 = most important, 2 = next most . . "

Advantage	Number of Responses	Average Ranking	S.d.	Rank order of the Averages
Contact with Faculty in my department	290	3.46	1.58	5
Contact w/undergrads in my department	303	3.38	1.54	4
Opportunity for professional experience & career training	339	2.28	1.25	2
Opportunity for personal development	307	2.85	1.48	3
Money	336	2.09	1.41	1
Opportunity to provide a service	270	4.19	1.62	6

Money is the most important advantage of holding an appointment, followed very closely by the opportunity for professional experience and opportunity for personal development (Ranks 1, 2 and 3). It does not seem surprising that money ranks first, especially when one observes, as much of the literature does[4], that the graduate appointment functions as many of the bursaries, scholarships and fellowships do: to make advanced study a financial possibility for the young scholar.

Just How Important is Financial Assistantship to the G.T.A.?

The graduate student, after three or four years of undergraduate financial outlay, delays his full earning possibilities an additional few years in order to obtain an advanced degree. Typically, he is at an age when one marries and begins a family[5]. In the University of Alberta last year (1970-71), 76% (or 1651)of the graduate students were married[6].

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[4] Davis (1962), Chase (1970) and Hunter (1967).

One ought bear in mind that the degree of financial need studied here is perceived need, i.e., each individual lives a different life style with accompanying financial expense. In today's world some individuals feel they could live reasonably well on an income of $5,000 per annum, while others would feel impoverished. So to presume that one income figure would suffice to meet all the needs of all individuals would be unwarranted.

Perceived financial need was, therefore, examined from a number of different perspectives. First, we have factual data on the percentage of appointment the G.T.A.'s held (see Table I in Appendix II). Second, we asked the G.T.A.'s if they currently held jobs outside of the University, and finally, we examined the situation of spouses who work to support the G.T.A.

Three hundred and four of the 370 G.T.A.'s in Table I of Appendix II were appointed "full-time" (i.e., .33 F.T.E.). This represents 82% of the respondents in this study. When asked if they also held jobs outside the University, sixteen of the full-time appointed G.T.A.'s and three of the sixty-six G.T.A.'s appointed less than full time answered "yes".

TABLE IX

"Approximately how many hours a week, on the average, do you now spend working (outside the University)?"

Hours Per Week	Full Time G.T.A.'s	Part Time G.T.A.'s
0 - 4	5	1
5 - 9	2	1
10 - 14	1	
15 - 19	4	
20 - 24	2	
25 - 29	0	
30 - 34	1	
35 - 39	1	
	16	2

---

[5] Hunter (1967) reports 61% of the 477,535 graduate students surveyed in 1965 were married. An additional 4% were single, with dependents (p. 8). See also Davis (1962), chapter three.

[6] University of Alberta Registrar's Office - Summary of Statistics (1970-71).

There is a third way of assessing the G.T.A.'s degree of perceived financial need. Each G.T.A. was asked if his spouse works, and if he feels that his spouse must work " . . in order to help ends meet . . " (Question 4, p. 3, Appendix I). One hundred and forty-four (or 37%) of the responding G.T.A.'s said their spouses do work, and of these, 134 felt it was necessary for them to work.

TABLE X

Does Your Spouse Work?		Do You Feel Your Spouse Has To?	
Yes	144	Yes	134
No	100	No	10
No Ans.	135		
	379		144

A fourth way of measuring the need for financial support is to determine how many students interrupt their graduate work to replenish the exchequer Wilson (1965) in his survey of advance degree holders from 23 colleges and universities in the southeastern United States, reports that the first of fifteen reasons cited by the respondents as factors which lengthened the amount of time required to obtain a degree was: dropping out of graduate school temporarily.

The reasons for dropping out of one's program temporarily are not wholly self-evident. Many possible causes suggest themselves. The question here was open ended, i.e., the G.T.A. was asked to write in his own reason. Sixty-one of the 371 G.T.A.'s who responded to question 19 (see p. 7, Appendix I) said they were out of school longer than a half-year. Fifty-eight of these indicated how long they were out. As Table XI indicates, most of them were out from one to three years.

TABLE XI

The Length of Time G.T.A.'s Reported
Temporarily Interrupting their Graduate Work

One year	25	G.T.A.'s
Two years	14	
Three years	10	
More than three years	9	
TOTAL	58	

Fifty-seven of these fifty-eight G.T.A.'s provided reasons why they interrupted their programs of study. Sixty-eight percent (or 39 of the 57) left graduate study to take jobs. Table XII displays the frequency of responses to the reasons given.

TABLE XII

Reasons for Interrupting Graduate Work

To take a job (not specified what)	25	G.T.A.'s	39
To teach in a college or university	4		
To teach in a high school	2		
Teaching, no mention of level	8		
Military service	2		
Personal illness	3		
To attend to personal affairs (marriage, study abroad, etc.)	5		
To organize my thoughts, etc.	8		
TOTAL	57		

Financial support is important to the graduate student, but one senses that the assistantship is more that "just a job". This statement is supported first by the 339 G.T.A.'s who, in Table VIII, ranked "opportunity for professional experience and career training" a close second to "money". More support comes from another question (Table V), where 80% of the respondents find some degree of professional reward from their appointment. A final piece of supportive evidence resides in the decision of 39 of the G.T.A.'s to renew their pursuit of an advanced degree after dropping out temporarily to work, (Table XII).

SUMMARY

The G.T.A.was examined as an apprentice instructor at the U of A. Many facets of his academic and personal life were surveyed: his perception of financial need, his feelings of satisfaction and dissatisfaction resulting from his appointment, the nature of rapport between the supervising professor and the G.T.A. and finally the degree of perceived participation the G.T.A. has in certain administrative aspects of the course he helps teach.

Financial Need

Most of the G.T.A.'s seem to be willing to sustain financial debts in order to pursue their advanced degrees, although 19 of the G.T.A.'s indicated they currently held jobs outside the University. Many married G.T.A.'s (134 of the 144 G.T.A.'s in the survey) indicated that they felt it was necessary for their spouses to work in order to " . . make ends meet . . ".

Satisfaction with the Position

Two classes of satisfaction were studied: individual feelings of satisfaction as a result of his position and perceptual satisfaction resulting from the status of the position itself.

For most of the G.T.A.'s, their appointment proved to be what they had expected it to be. A large number of G.T.A.'s were neither satisfied nor dissatisfied with any personal reward feelings stemming from their appointment, which suggests that they tend to view the position as "just a job".

It is a special kind of "job", however, because it is embedded in the career aspirations of most of the G.T.A.'s. Most of the respondents viewed their appointment as an opportunity to develop professionally as well as an opportunity for personal intellectual improvement.

On the other hand, any gainful employment will interfere with one's studies; and a fair number of the G.T.A.'s in this study (133) felt that they do not have the time to bring their own academic work up to the standard of excellence they feel they can obtain.

Supervision

Good rapport exists between most of the G.T.A.'s and their supervisors. Not only does the communication between superior and subordinate appear to be good, but many of the G.T.A.'s indicate that they felt free to approach and discuss course-related problems with their supervisors.

Participation

The trend in the governance of higher education in North America has been towards a greater representation from concerned elements of the academic community[7]. The U of A has been an active part of this trend; by increasing student representation on GFC and on faculty and departmental staff committees (GFC Minutes, Feb. 1971). One wonders if this increased representation will (or should) also be present in the instructional area. At present, the G.T.A. has some influence in the determination of what materials and units are part of the course syllabus. He takes an active hand in composing daily quizzes and term-paper topics, but has little to do with the composition of final and mid-term examinations. It is felt that the degree of participation the G.T.A. has will vary from department to department, depending on the particular management style that permeates the department.

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[7] See, for example, Keeton, 1971; U of Toronto, 1970; Duryea, 1971; and the June 1971 issue of the Journal of Higher Education.

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Study Number ____ APPENDIX I April, 1971

GRADUATE ASSISTANT QUESTIONNAIRE

General Information:

1. What degree program are you on, and what is your current status?

Degree program ______________________________

Degree sought (Circle only one number)
1 Masters (MS, MSc, etc.)
2 Ph.D.
3 Professional degree (MD, DDS, LLB, etc.)

Current Status (Circle only one number.)
1 Probationary graduate students
2 Qualifying graduate student
3 Candidate for a Master's Degree
4 Provisional candidate for a doctorate degree
5 Combined MD/Ph.D. program student
6 Special student
7 Post Doctoral fellow
8 Other ______________________________
____

2. What type of a position will you be seeking once you receive your degree? (Examples: a MSc in Chemistry might seek a job in a petroleum industry laboratory; a MA in Educational Administration might look for a school administrator's job, etc.)

First Choice:

Type of Position ______________ in ______________
Type of organization

Second Choice:

Type of Position ______________ in ______________
Type of organization

3. I have been a GRA or GTA for a total of ☐☐ . ☐ academic years. (Note: two terms = one academic year. If you were a GTA, GSA, or GRA for one term, then put down .5 years. Count this current year as a full year, even though it is not over yet.)

4. When did you receive your bachelor's degree? (Use numbers, where 01 = January, 12 = December, and the last two digits of the year, e.g., '68)

☐☐ month, ☐☐ year

Please do not write below this line.

5. Where did you earn your bachelor's degree? ____________________

[redacted]

6. When did you start your graduate work? (Note: Please exclude any double enrolment during your last year as an undergraduate.)

☐☐ month, ☐☐ year

7. Do you live in university housing? (Circle one of the numbers below.)

1 Yes
2 No
3 Not applicable

Specific Information:

1. How satisfied have you been with your progress towards obtaining your current degree? (Circle one number)

1 Very dissatisfied
2 Dissatisfied
3 Neither satisfied nor dissatisfied
4 Satisfied
5 Very satisfied

2. To what degree do you feel that the work which you do as a GRA, GSA, or GTA is professionally rewarding. (Circle one number.)

1 Very unrewarding--it contributes nothing to my professional development
2 Unrewarding--it makes a very mild contribution to my professional development
3 Somewhat rewarding--about half of what I do helps me grow professionally
4 Rewarding--most of what I do as an assistant helps my professional development
5 Very rewarding--almost everything I do contributes to my professional development

3. How satisfied are you with your present appointment as a GRA, GSA, or a GTA when you consider the expectation you had for the appointment when you first took it? (Circle one number.)

1 Very dissatisfied
2 Dissatisfied
3 Neither satisfied nor dissatisfied
4 Satisfied
5 Very satisfied

4. If you are married, does your spouse have a job? (Circle one number.)

   1 No

   2 Yes→Do you feel that your spouse has to work in order to help ends meet?

      1 Yes

      2 No

5. Compared to the other graduate students in your department who are working for a degree, how do you think you have been progressing through each stage? Please use numbers from the following scale, and apply them only to those items which your department now requires for the degree you are seeking.

   0 = Not applicable, or I have not reached this state as yet.

   1 = I have been moving much faster than the other graduate students in my department.

   2 = I have been moving a little faster than the other graduate students in my department.

   3 = I have been moving about equal with the others.

   4 = I have been moving a little slower than the others.

   5 = I have been moving much slower than the others.

   (Place the appropriate number in each box below.)

   ☐ Probationary graduate student
   ☐ Qualifying graduate student
   ☐ Candidate for a master's degree
   ☐ Provisional candidate for a doctor's degree
   ☐ Candidate for a doctor's degree
   ☐ Combined MD/Ph.D. program

6. Do you feel your own academic progress has suffered because of your current appointment as a GTA, GSA, or a GRA? (Circle one.)

   1 Yes, a very great deal
   2 Yes, quite a lot
   3 Yes, to some extent
   4 No, hardly at all
   5 No, definitely not at all

7. Is there someone in your department who is directly responsible for your work as a GTA, GSA, or GRA? (Circle one number.)

1 Yes Who? ______________________________
2 No Please explain. ______________________
____
____
3 Don't know of anyone Please explain. _____
____
____

IF YOU CIRCLED 2 OR 3 IN QUESTION NO. 7, SKIP TO QUESTION 12.

8. How well does your current supervisor make clear what he expects of you in your work as a GTA, GSA, or GRA? Answer both Part A and Part B. (Circle one number in each part.)

A. He Gives:

1 No instructions whatsoever (N.B. Circle 6 in Part B and to on to Question No. 9)
2 General instructions
3 Somewhat detailed instructions
4 Very detailed instruction

B. He Gives:

1 Very ambiguous instructions
2 Ambiguous instructions
3 Occasionally ambiguous, occasionally clear instructions
4 Clear instructions
5 Very clear instructions
6 See Part A, No. 1

9. How clear are you about the limits of your responsibility in your present appointment as a GTA, GSA, or GRA? (Circle one number.)

1 Not at all clear
2 Not too clear
3 Fairly clear
4 Quite clear
5 Very clear

10. From a purely mechanical point of view, how available is your current supervisor? (i.e., does he keep regular office hours? Can you make an appointment to see him?) (Circle one number.)

    1 He is very hard to get to see.

    2 He is available, but it is not always easy to meet with him.

    3 He is readily available and easy to contact.

11. If you have a problem arising from the work you are doing as an assistant, are you willing to discuss it with your supervisor? (Circle one number.)

    1 I am willing but my supervisor cannot be bothered

    2 I am willing and my supervisor is available to discuss the problem with me

    3 I am reluctant because my supervisor cannot be bothered

    4 I am reluctant to talk to my supervisor for reasons other than those given above

12. Have you ever felt that, as a GTA, GSA, or a GRA, you did not receive adequate recognition for work you had done which resulted in publication? (Circle one number.)

    1 Yes Please describe your plaint ____________

    ____

    ____

    2 No

13. How often do you feel that your appointment and studies both tend to interfere with your social life? (Circle one number.)

    1 Never

    2 Rarely

    3 Sometimes

    4 Rather often

    5 Nearly all the time

14. Below are some of the advantages which holding an appointment in one's department offers. Please rank each according to its importance to you. Where:

1 = The most important advantage
2 = The second most important
3 = The third most important and so on.

Place the appropriate number in each box below.

② ☐ Contact with the faculty in my department
☐ Contact with the undergraduate students in my department
☐ The opportunity for professional experience and career training
☐ The opportunity for personal intellectual development
☐ Money
☐ The opportunity to provide a service and fulfill a need in the academic community
☐ Other ______________________________
____

15. As a graduate student how often do you think that the amount of class work you have to do as a part of your own degree program adversely affects how well it is done? (Circle one number.)

1 Never
2 Rarely
3 Sometimes
4 Rather often
5 Nearly all the time

NOTE: THE NEXT TWO QUESTIONS WILL BE KEPT IN STRICTEST CONFIDENCE.

16. Do you currently have a job outside the university? (Circle one number.)

1 Yes. Approximately how many hours a week, on the average do you now spend working?
☐☐ . ☐ hours per week
2 No

17. Approximately how many hours a week, on the average, do you now spend actually working as a GTA, GRA, or GSA? (Note: Do not put down the number of hours entered on your contract unless you actually work that many hours.)

☐☐. ☐ hours per week

18. To what degree do you feel that the work which you are now doing as a GTA, GRA, or GSA is personally rewarding? (Circle one number.)

1 Personally, my assistantship has been a bore.
2 It is all right, I guess.
3 I am neither satisfied nor dissatisfied with my assistantship.
4 I get a real thrill from my job.
5 It could not be better.

19. Have you ever been out of graduate school longer than a summer or a term (½ year)? (Circle one number.)

1 No
2 Yes--(a) How many times were you out of school longer than a summer or a term? ☐ times
(b) How long was the longest time you were out? ☐ years ☐ months
(c) Thinking of the longest time you were out, what was the reason (or reasons) for this interruption in your graduate work? ____________

____

____

20. If the University of Alberta were in a position to provide more money to GTA's, GRA's, and GSA's, how do you think it ought to be spent? Using the following scale, rate each of the alternative ways of allocating this money.

1 = Urgent, top priority
2 = Very desirable
3 = Fairly desirable
4 = Not very desirable
5 = Wholly undesirable

Place the appropriate number in each box below.

☐ Provide a dependency allowance for spouse and and children

☐ Establish a long-term (i.e., two or three years) income guarantee in return for a stated obligation.

☐ Waive all tuition fees regardless of the percentage of appointment

☐ Improve insurance and other fringe benefits

☐ Improve physical facilities

☐ Grant a general salary increase to everyone (i.e., to all GTA's, GRA's, and GSA's.)

☐ Reduce the workload for the same amount of money I am now receiving

☐ Establish and subsidize a day-care center

Other alternatives: (Please list and rate.)

☐ ____________________

☐ ____________________

☐ ____________________

☐ ____________________

21. In my department, the graduate student with the heaviest workload is:

1 GTA's
2 GRA's
3 GSA's

22. Below is a list of the various decisions you, as graduate assistants, may be asked to make. Please indicate the amount of voice or influence you feel you currently have in each of the following situations, using the appropriate number from the following scale.

1 = Total voice
2 = Strong voice
3 = Moderate voice
4 = Little voice
5 = No voice at all
6 = This item does not apply to me

22(a). ALL GRADUATE STUDENTS ANSWER THIS SECTION:

☐ Selection of a chairman, associate, or assistant chairman

☐ Promotion or tenure of department's faculty

☐ Promotion or tenure of the academic staff in your school or faculty

☐ Academic discipline of students

22(b). ALL GRA's ANSWER THIS SECTION:

☐ The hours of the day you are assigned to work

☐ The types of materials you are to use in your research work

☐ The subject area you do your research in

22(c). ALL GTA'S AND GSA'S ANSWER THIS SECTION:

☐ The content to be covered in your particular sections or labs

☐ The readings and materials for your particular sections or labs

22 (c) Continued...

☐ The composition of quizzes, paper topics, lab experiments or problems, etc.

☐ The composition of mid-term and final exams

☐ The determination of the students' final grades

The inclusion or exclusion of items on the mid-term and/or final examinations.

	Mid-Term	Final
Inclusion	☐	☐
Exclusion	☐	☐

23. In the space below, please describe what you consider to be your greatest concerns about your participation or lack of participation in the decision-making activities in your department.

This conludes the questionnaire. Thank you very much for participating. Please go back over the questions to see if you have answered them the way you wanted to. Have you missed any questions? When you are satisfied, put the questionnaire in the envelope and drop it in the campus mail.

If you have any comments to make about the university, your particular life as a graduate student or the conditions surrounding your appointment, please use the back of this page for that purpose.

APPENDIX II

TABLE I

Responding G.T.A.'s Distributed According to the Fraction of Appointment

% F.T.E.*	
.33	304 G.T.A.'s
.27	2
.25	4
.17	6
.11	53
.09	1
	370

* F.T.E. = Full Time Equivalence of an Academic Year

Review of Educational Indexes and Abstracts

The knowledge explosion which inundates the researcher has in turn intensified the utility of abstracting and indexing services. This report is a annotated inventory of relevant indexes and abstracting publications currently located in the University of Alberta's Education Library.

REVIEW OF EDUCATIONAL INDEXES & ABSTRACTS

Joyce Chorney

January 1972.

An overview of the indexes and abstracts dealing with education was carried out. More specifically, their value as reference tools in the subject area of Teaching and Learning in Institutions of Higher Education was determined. These library sources were examined within the context of four factors to determine their usefulness in information retrieval: (a) the general field they surveyed; (b) the magazines they surveyed; (c) specificity of classification found within them; and (d) degree of availability of the material offered by them. The indexes and abstracts will appear and be discussed in alphabetical order as listed on the attached sheet and a summary listing the most beneficial sources will follow. Each index and abstract present below in alphabetical order will be described by the particular volume and year that was reviewed.

1) AUSTRALIAN EDUCATIONAL INDEX (Vol. 11 - 12, 1969)

This is an index to books, pamphlets and selected periodical articles on education and educational psychology published in Australia, works on Australian education and works by Australian authors published in other countries. This index surveys approximately 200 periodicals, books, and pamphlets with most of the articles selected from Australian periodicals. The availability of material found in the Australian education index is below average as our libraries do not hold a large stock of Australian periodicals. For information on Australian education, specifically, one should consult the Australian Journal of Education. The classification system found in the Australian educational index is not highly specific. A list of general subject headings is provided, i.e., Psychological tests, speech defects, sociology, etc., for all material indexed. In the index, subject entries follow the subject headings, but become slightly more specific, with sub-divisions occurring. Some cross-references are provided, but one could not zero in on a topic with much examination of this index. The Australian Educational Index has a large section on teaching, but a small one on learning.

2) BIBLIOGRAPHY INDEX (1970)

This is a cumulative bibliography of bibliographies, that is, a subject list of bibliographies in both English and foreign languages in the Roman alphabet which contains 40 or more bibliographic citations. Bibliographies published separately or appearing as parts of books and pamphlets are included. Approximately 1,900 periodicals (many foreign) received by the H.W. Wilson Co. are examined for bibliographic materials. Other periodicals not indexed by this company are also examined. The availability of material is average as there are many foreign articles. This index surveys a wide subject field - psychology, education, science, medicine, agriculture, etc. Quite a large list of bibliographies is found under the subject topic Education. There is detailed sub-division within this area under the sub-division 'periodicals'. As well, a large section is found on higher education and teaching and learning. An extensive sub-divided subject index is provided.

3) THE BRITISH EDUCATIONAL INDEX (1968-69)

The British Educational Index is an index to selected British periodical articles on the general field of education. It covers nearly 100 journals, some of them specialist like History, Greece and Rome, etc., and a few important general journals like Nature and Universities Quarterly. This index is comprised of a subject index and an author index. In the subject index, specific topics are preferred for headings, e.g., Chemistry Teaching, Village Schools, etc., although broader headings are employed when useful. Within each heading, subdivisions are filed alphabetically. The classification system is specific although the choice of terms as headings is not always so helpful (no entries or even references in the first issues under 'Programmed Learning', all this material is under 'Teaching Machines'. There is the occasional lack of consistency, especially in regards to specific aspects of foreign education systems. (Foskett, 1965)* As this index is specifically limited to British periodicals, availability of material is about average. Our libraries do contain many British periodicals but not enough to make articles from this index highly available.

4) BUSINESS EDUCATIONAL INDEX

This is an index of business educational articles compiled from a selected list of periodicals, yearbooks and theses. The Business Educational Index surveys approximately 50 magazines, diverse in scope - e.g., the Journal of Applied Psychology, Business Education Forum, etc. A list of general periodicals and business education periodicals is provided at the back of the index. The availability of this material is below average as it is comprised mainly of American journals and specialized state publications. The classification system is rather general with not detailed subject divisions, e.g., Accounting has a long list of articles but no sub-divisions to indicate specific topics. This index has a large section on Teaching, but very little in the area of business education is on learning.

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* D.J. Foskett, M.A., F.L.A., Librarian, University of London Institute of Education.

5) CANADIAN EDUCATIONAL INDEX (Vol. 6, 1970)

The Canadian Educational Index is a cumulative author, subject index to a selected list of Canadian educational periodicals, books, pamphlets and reports in the general field of education. The periodicals surveyed (approximately 140) are quite diverse, that is, the index contains some of the larger magazines that deal with education and some of the smaller ones, i.e., Canadian Psychologist and Alberta Journal of Educational Research. As it is mainly Canadian publications, availability of material is high. The classification system found in this index is not specific or detailed, but topic sub-divisions do occur. In order to find some specified subjects the list of articles must be scanned. This index devotes much attention to psychology of learning and has a substantial section on teaching.

6) CANADIAN PERIODICAL INDEX (Vol. 22, 1969)

This index surveys approximately 100 or more Canadian magazines covering the arts, business world, education, sports, etc. An overview of the titles indicates that most of the magazines are not hard data scientific journals, but mainly interest journals, e.g., Chatelaine, MacLeans. Most of the magazines appeal to the layman and various interest groups. The sections on Teaching and Learning are not at all extensive. The classification system is quite specific with much sub-division occurring. The availability is high as the periodicals surveyed are well known and can be found quite easily inside or outside the library. This is similar to # 26, the Reader's Guide to Periodical Literature.

7) CHILD DEVELOPMENT ABSTRACTS AND BIBLIOGRAPHY (Vol. 45, Nos 3-4)

These abstracts were examined within the context of the four factors mentioned at the beginning of the report and will not be discussed as they bear no relevance to the area of Teaching and Learning in Institutes of Higher Education.

8) CIRF ABSTRACTS (INTERNATIONAL VOCATIONAL TRAINING INFORMATION & RESEARCH CENTRE - Vol. 10, 1971)

These abstracts convey information about vocational training, ideas, programmes, experience and experiments in periodicals, books, pamphlets, law degrees and other printed material related to operative personnel, supervisors and technical staff in all sectors of economic activity. Information on major trends in other fields of human resources development and utilization as it relates to or influences vocational training is also included. The selection of items is international and very recent (published within the previous six months). The availability of the material is high in terms of the abstracts, but low in locating the actual article. A list of periodicals indexed at the back contains many articles from foreign countries. The classification system is very general, providing broad subject headings, there is no sub-division, thus one would have to look through all the abstracts in a section of a particular topic.

9) COLLEGE STUDENT PERSONNEL ABSTRACTS (Vol. 2, No. 3)

These abstracts are published by the College Student Personnel Institute, a private, non-profit center for information exchange, research and training in areas related to college students and student services. They compile abstracts from journals, conference proceedings, and research reports pertaining to this area. The journals surveyed (approximately 100) are in the area of psychology, sociology and education. The material is highly available as many of the journals are well known and scholarly, and held by most libraries. An author index and general subject index are provided as well as a Table of Contents. The subject index is small and not very specific. These abstracts have a very slight relevance to the area of Teaching and Learning.

10) CURRENT CONTENTS: BEHAVIOURAL, SOCIAL, AND EDUCATIONAL SCIENCES (Vol. 3, No. 44, November 3, 1971)

The weekly issues reproduce, in their original format and frequently in advance of publication, the table of contents of more than 1100 journals reporting world wide research and practice in the behavioural, social and management sciences, and in educational theory and practice. This service is designed to help scholars, scientists, educators and managers keep pace with new developments in their own and related fields. An author index and address directory are found at the back. A very general section guide occurs at the front, i.e., 5 Behavioural Sciences, Education/General, Education/Specific. The classification system is not very specific and the sections provided are not too large. However, it is time consuming to use this source. The particular issue examined surveyed approximately 120 magazines representative of the field of Psychology, Education, e.g., American Journal of Psychiatry, Journal of Genetic Psychology. The availability of these magazines is high as they are well known and generally held by libraries. The Address Directory in the back is provided for those who desire reprints. This particular source would be valuable to the scholar who wishes to polish off his writing with one last literature search of the very latest articles dealing with his topic.

11) CURRENT INDEX TO JOURNALS IN EDUCATION (Vol. 2, 1970)

CIJE was developed because of inadequate coverage of periodicals by RIE (Research in Education) which has listings of ERIC. CIJE has the subject expertise of the ERIC clearing houses and the vocabulary of descriptor headings developed for indexing of educational literature. The Thesaurus of ERIC descriptors is used in the subject indexes of CIJE. The majority of publications in Vol. 2 represent the core periodical literature in the field of education as well as peripherial literature relating to the field of education. Being an annual cumulation, this volume indexes articles in over 500 educational and education oriented journals. Of these, many are scientific and very relevant in the field of education. The availability of this material is high as the journals are well known and held by many libraries. However, reprints of articles indexed in CIJE are not available from a central source. The classification system found in this volume is very comprehensive and specific. The Main Entry section is grouped into broad subject categories (descriptor groups) so users may focus attention to the field of his interest. A subject index exists with as many as five descriptions per journal article listed here. One cannot zero in on a specific subject without the use of the ERIC descriptor thesaurus (see #15).

12) DSH ABSTRACTS (deafness, speech, hearing) (Vol. 9, 1969)

The purpose of these abstracts is to bring to the attention of professional readers the worlds' literature on deafness, speech and hearing. DSH Abstracts print brief, non-commital summaries of literature published in all major languages pertinent to DSH. Approximately 500 journals are surveyed, mainly scientific hard data journals and journals devoted to DSH. Availability of material is good although many foreign journals are indexed. The classification system though specific will not be discussed as there is little relevance to teaching and learning except as it relates to DSH. Education is a sub-division of one or the other at some time.

13) DISSERTATION ABSTRACTS INTERNATIONAL

(A) THE HUMANITIES AND SOCIAL SCIENCES (Oct. 1971, Vol. 32, #4)

This is a monthly compilation of doctoral dissertations submitted to University Microfilms by more than 290 cooperating institutions in the U.S. and Canada. It surveys the general field of Humanities and Social Sciences. The Table of Contents lists general topics followed by a keyword title index. The classification system becomes quite specific through the keyword title index by which the bibliography entries are classified and arranged. This index lists the references alphabetically by keywords contained in the title. Keywords derived from dissertation titles are printed in bold face type and are followed by the titles in which they occur, the author and page reference of the abstract. Availability of material is above average in conjunction with our microfilm facilities. Abstracts may be obtained on microfilm or as xerographic reproductions. However, contributions from predominantly American Universities lowers the availability. Separate Dissertation Abstract Indexes (retrospective indexes) provide further access to DAI.

14) EDUCATION ABSTRACTS

These abstracts were published by UNESCO but have ceased publication since 1964. Each issue covers a specific field in the area of education such as health education, educational research, correspondence research, etc., and is compiled by an expert on the topic. Practice varies in the actual layout: some authors list the entries consecutively like an annoted bibliography, some write a narrative text referring to the entries which are listed at the end.

Generally an introduction to the topic occurs followed by an annotated bibliography and an abstract. Books, magazines, government publications and documents in the field of education are surveyed. These abstracts are good for an international look into some topics of education. The inside cover gives the list of previous issues and their topics. The classification system is almost nonexistent as there is not a cumulative index to the topics in previous issues except in the inside cover which is often missing. The availability of the material is average as it is right there, but is limited to publications before 1964.

15) ERIC (EDUCATIONAL RESOURCES INFORMATION CENTRE)

ERIC is a national information system which dessiminates educational research results, research, related materials, and other resource information. Through a network of specialized decentralized information centres, or clearinghouses, each of which is responsible for a particular educational area, information is acquired, evaluated, abstracted, indexed and listed in RIE (Research in Education). RIE is a monthly abstract journal reporting on newly found research projects supported by the Bureau of Research, U.S. Office of Education, recently completed research on research related reports and other documents indexed by subject, author, investigator and institution. ERIC provides for in-depth search through the Thesaurus of ERIC descriptions. This is a vocabulary of educational terms developed by subject specialists at ERIC Clearinghouses and is used to index documents, projects, reports and journal articles in the ERIC system. By using the Thesaurus one can identify other key research terms (descriptors) listed under the original search terms, that is, one can select synonyms, broader terms, narrower terms and related terms to expand one's search of the monthly issues of RIE, the Annual Indexes and other ERIC reference tools, i.e., Historical Collection, Selected Documents in Higher Education, etc.

ERIC furnishes copies of all types of educational documents at nominal cost. The availability of material is very high as the abstracts of the articles are in RIE. From reading these abstracts one can determine whether the full text would be useful. The articles may then be easily obtained by ordering microfiche or hard copy from ERIC Document Reproduction Service or by checking the availability in the microfiche library via ERIC Educational Documents Index.

16) EDUCATION INDEX (July 1969 - June 1970)

The Education Index provides a cumulated author subject index to a selected list of educational periodicals, proceedings and yearbooks in the English language. It also includes bulletins, monographs and pamphlets printed by the U.S. Government. The subject areas indexed include: administration; preschool, elementary, secondary, higher and adult education; teacher education; counselling and guidance; curriculum and curriculum materials. The journals surveyed in this Index include hard and soft data journals as well as specialized and general journals. The Education Index has a modest claim to international coverage, since it includes a number of Canadian journals, American journals, some half dozen British journals and some Unesco publication. A comprehensive classification system with highly specific subject headings allows one to concentrate on specific topics.

17) EDUCATIONAL ADMINISTRATION ABSTRACTS (Vol. 5, 1970)

These abstracts survey approximately 100 magazines in the area of educational administration. In the Table of Contents four general Area Headings are listed with some sub-division. A subject index is provided in a separate book which is prepared by the ERIC Clearing house on Educational Administration. It is compiled to provide subscribers to Educational Administration Abstracts with a useful reference tool to identify and use the journal articles in Vol. 1-4. The list of terms used in the subject index are taken from the Thesaurus of ERIC Descriptors which lists all the terms that have been developed from the indexing of research reports, projects and other documents processed by ERIC. Such specific classification helps a user zero in on a particular topic. The availability of the material is high as the abstracts are there for general survey and the magazines are easily available in the library.

18) ENCYCLOPEDIA OF EDUCATIONAL RESEARCH (Copyright 1969)

This encyclopedia is designed to provide a convenient source of information about most of the important aspects of education. The research is broadly conceived to include all kinds of contributions to educational knowledge, not simply those resulting from experimental studies. Thus lists of references may include articles presenting analyses of educational problems, critiques of educational practices and reports of practical experience, along with experimental studies. An overwhelming American content may present difficulty in use, especially in terminology. No magazines are surveyed by the EER, rather, articles on various topics are provided by authors or investigators in the field of education. Thus, the availability of the material is high as the articles are right there along with references. A Table of Content Areas is provided followed by a less general table of articles on each content area. Author/article, article/author indexes are provided as well. In the middle of the book the subject index appears. The classification is quite specific (minute sub-divisions) and one can get close to particular topics.

19) EXCEPTIONAL CHILD EDUCATION ABSTRACTS (Vol. 1, 1969-70)

These abstracts are a product of CEC Information Centre (CEC ERIC Clearing house) published by the Council for Exceptional Children, NEA. CEC Information Centre was established at Council for Exceptional Children to serve as a comprehensive source of information on research, instructional materials, programs, administration, teacher education, methods and curriculum for the field of special education. Abstracts stored on computer file of CEC Information Centre are indexed and published in ECEA. Vol. 1 contains the first 500 abstracts placed on file. Future issues will carry abstracts as they are processed. The Centre began acquiring, abstracting and indexing documents in 1967. Significant literature published since 1962 related to education of the handicapped, and gifted was obtained. There is no arrangement or classification of abstract, it is necessary to consult the subject index to identify abstracts on particular subjects. By comparing abstract numbers entered under several index terms it is possible to search for very specific information. Subject indexes in ECEA are cumulative, thus by using the most recent index the user can survey all previous volumes of ECEA. The classification in the subject index is not very specific at all, for example, Learning Disabilities in the index lists many page numbers under the topic, but there is no form of delineation as to the type of learning disability. Availability of the material is high in respect to the abstracts themselves, but average in terms of the documents used. One can purchase documents in microfiche or hard copy from ERIC Document Reproduction Service.

20) HEALTH EDUCATION ABSTRACTS (Vol. 1, No. 4, Spring 1968)

The purpose of these abstracts is to serve as a means of communicating the increasing wealth of significant research basic to health education practice. These abstracts survey a wide field of journals in the area of Psychology, Science, Medicine, etc. Many hard data magazines are included in the survey. The material is above average in availability as the magazines are well known and found in most libraries. The classification is very general and not effective for efficient perusal of information about specific subjects. These abstracts have little relevance to the area of learning although they would be of slight benefit to teaching.

21) LLBA: LANGUAGE AND LANGUAGE BEHAVIOUR ABSTRACTS (Vol. 4, 1970)

These abstracts provide rapid, comprehensive and selective access to literature in language and language behaviour - whatever the disciplinary focus, country of origin, or language in which it is written. Almost 1,000 journals in some 25 languages are screened. The articles are scholarly in nature. A Table of Contents lists 25 disciplines, 11 of which govern Psychology, Educational Psychology and Special Education. The classification system is very general and one must look through all the abstracts under a discipline to ascertain its pertinence to his topic. No subject index is provided. The availability of the material is above average although many foreign journals are surveyed.

22) LANGUAGE-TEACHING ABSTRACTS (Vol. 1-2, 1968-69)

These abstracts survey the field of language teaching and learning. The particular volume looked at had no index or Table of Contents. Volume 3, No. 1 (Abstracts 1-91, January 1970) did have a Table of Contents which was divided into three areas: Language and Linguistics, Studies of particular Languages and Language Learning and Teaching. There is a bibliographical supplement at the end of the abstracts which contains a list of annotated books which are additional to those listed in A Language-Teaching Bibliography. Author and subject indexes to each volume are separated and found at the back of each volume. The subject index is very general and small. There is a list of periodicals after the bibliographic supp. in Vol. 3, but not in Vol. 1-2. The material is below average in availability with many foreign language articles surveyed.

23) MENTAL HEALTH BOOK REVIEW INDEX (Vol. 1-12, 1956-67)

This is an annual list of books selected and reviewed by specialists and organized as a bibliography by librarians. This index aims at a synthesis of the significant monographic literature in the behavioural science. The list of books is based on an unpublished cumulative file of references appearing in 250 journals in the English language, relating to Behavioural Sciences and the field of mental health. Approximately one-third of the journals originate outside the U.S. The fields represented by the index include parts of the biomedical and social sciences and the humanities with a concentration in the psychological sciences. Individual books range in scope, from the study of an entire discipline to that of a particular problem; in presentation, from technical to general in treatment. Each annual issue of the Index lists about 300 books with references to three or more reviews, at least one of the reviews cited is from a journal in the psychological sciences. A cumulative author-title index is provided as well as an author and journal index. The classification system is not specific enough as books are listed chiefly by author and not subject. The availability of the material is above average as many well known journals are surveyed.

24) MENTAL RETARDATION ABSTRACTS (Vol. 8, No. 1, Jan-Mar 1971)

The Mental Retardation Abstracts are a specialized information service designed to assist the Division of Mental Retardation, Rehabilitation Services Administration in meeting its obligation to plan, direct and coordinate a comprehensive nation-wide program for those with mental retardation and related handicaps. These abstracts meet the needs of investigators and other workers in the field of mental retardation for information about new developments and research results. Approximately 50 magazines in the area of Psychology, Science and Medicine, and Education relating to mental retardation are surveyed. The magazines are highly available as well. Reprints can be obtained by writing to the authors. A general table of contents is provided followed by a specific subject index. An author index is found at the back. These abstracts are of very slight benefit in the area of Teaching and Learning.

25) PSYCHOLOGICAL ABSTRACTS (Vol. 44, No. 1-4)

These abstracts furnish non-evaluative summaries of the world's literature in psychology and related disciplines. Approximately 500 magazines in the above-mentioned area are surveyed. These magazines are quite scholarly in nature and international in coverage. The availability of material is quite high even though there are a number of foreign magazines and articles. The classification system is quite specific. The Table of Contents provided is more detailed than most, and the subject index allows one to get quite close to a particular topic. Cross references occur often and it is wise to think of a number of descriptors to reach a topic. Annual alphabetical author and subject indexes are provided, which include abstracts from non-American literature. A large area is devoted to Teaching, Learning and Education.

26) READER'S GUIDE TO PERIODICAL LITERATURE (Vol. 30, Mar. 1970-Feb. 1971)

This is a cumulative author subject index to periodicals of general interest published in the U.S. The selection of periodicals for indexing is accomplished by subscriber vote. Authors and subjects are arranged in one alphabet, as well as titles. Approximately 170 magazines of layman interest reading type, e.g., McCalls, Mechanics Illustrated, etc., are surveyed. The availability of material is high. The classification system is more specific than usual. The information provided by this source would only be of slight benefit to the area of Teaching and Learning (see the Canadian Periodical Index, No. 6).

27) SOCIOLOGY OF EDUCATION ABSTRACTS

Abstracts relevant articles from 270 selected journals (many of them foreign) and books published by 320 publishers in the world. These abstracts cover the following subjects: all areas of sociological sciences and education; education and vocational guidance; education of the culturally disadvantaged; industrial training; education in developing countries; organization and administration of education; educational planning; methods of research; and higher education. The classification system is not too specific as no subject index is provided. However, an Education Study Areas Index allows one to come close to certain sub-topics. The Study Area Index is too small though, and there is no relationship between areas. The material is above average in availability with journals in Psychology, Sociology, Education, Science and Medicine. Many of these can be obtained from the library.

28) STATE EDUCATION JOURNAL INDEX (Vol. 7-8, 1969-71)

This is an annotated index of state education journals surveying the broad field of education. Approximately 50 educational publications in the U.S. are used by this index. Classification of subjects is not too general; alphabetical sub-divisions occur. However, one must think of more than one descriptor to get information on any one topic. Some cross-referencing does occur. The availability of material is quite low (only American content) and no indication was provided as to how articles may be obtained. Very few of the publications would be held by our libraries.

29) SUBJECT INDEX TO CHILDREN'S MAGAZINES (Vol. 21-22, 1969-70)

This index surveys approximately 55 children's magazines in all areas of interest to children. Further discussion will not occur as it is of no relevance to the area of Teaching and Learning in Institutions of Higher Education.

30) TECHNICAL EDUCATION ABSTRACTS (Vol. 10, 1969-70)

These abstracts provide a service for all those inside and outside the public education system concerned with science, technical and further education including education and training for industry and commerce at all levels. The abstracts are drawn from both periodicals and separately published works. Each issue (with about 120 abstracts) has a subject and author index, with the last issue having a cumulative index. The Table of Contents or subject index is not too general, but one cannot reach close to a specific topic. A list of periodicals abstracted is not provided so availability of material is difficult to ascertain and only by looking at listings under the subject index could this be done. Specific technical and educational journals were found and their availability would probably be average or slightly less than average.

31) ULRICH'S INTERNATIONAL PERIODICALS DIRECTORY (Vol. 1, 1971-72)

This is a classified guide to current periodicals, foreign and domestic in the field of Literature, Science, Agriculture, Education, Medicine, Psychology and Technology. The journals vary in scope from scholarly to general interest. The Main Text of the Directory consists of entries for about 50,000 current periodicals alphabetically arranged under 223 main subject headings and subheadings. There is an index to new periodicals that have started and an index of those that have ceased publication recently. This directory is helpful in providing an investigator with a magazine that covers a specific area, e.g., Education Equipment. The index contains a Key to Subjects which allows one to locate specific sub-topics and then find journals that deal with them. Availability of material is above average although it is international in scope.

32) A WORLD BIBLIOGRAPHY OF BIBLIOGRAPHIES (T. Besterman)

Besterman has provided a bibliography of bibliographies of books, pamphlets, periodicals and every kind of type set and 'near print' matter (e.g., manuscripts, letters, documents, deeds, etc.) which is international in scope. Entries are made under quite specific headings; where general headings occur, general bibliographies are provided. Entries are arranged by subjects with an author index following. Collective headings are used to save repetition, as well as much cross-referencing. A separate subject index (Vol. V) to four other volumes is provided. This particular volume (Vol. V) does not have much on Teaching and Learning or Education, but Volume II has quite a large section on Education. This work surveys a wide scope of subjects in the area of Education, Medicine, Science, Technology, Psychology, etc. The material is below average in availability as many articles and bibliographies are foreign. The bibliography is only as recent as 1963 and its relevance to the area of Teaching and Learning specifically is not great.

SUMMARY

1. The indexes and abstracts with little or no relevance to the area of Teaching and Learning in I.H.E. are:

   Canadian Periodical Index
   Exceptional Child Education Abstracts
   Mental Retardation Abstracts
   Readers' Guide to Periodical Literature
   Subject Index to Children's Magazine
   Child Development Abstracts and Bibliography

2. The abstracts and indexes with only slight use to the area of Teaching and Learning in Institutions of Higher Education are:

   Educational Administration Abstracts
   Mental Health Book Review Index
   College Student Personnel Abstracts
   Current Contents: Education
   Ulrich's International Periodicals Directory
   Bibliography Index

   These are only slightly relevant because of limitations in scope (topics indexed), type of material indexed (general interest magazines, books only, etc.), and the existence of time consuming classification systems.

3. The indexes and abstracts which provide an investigator with an average topic scope, good availability of material, a somewhat specific classification scheme for more than surface investigation in the area of Teaching and Learning are:

   Australian Education Index
   British Education Index
   Canadian Education Index
   Dissertations Abstracts International
   Encyclopedia of Educational Research
   Sociology of Education Abstracts

4. Indexes and abstracts of limited use to the area of Teaching and Learning are:

   Education Abstracts
   Besterman's World Bibliography of Bibliographies

   as the former ceased publication in 1964 and the latter covers material up to 1963 only.

5. The indexes and abstracts with limited but specific use in special areas of Teaching and Learning are:

   Business Education Index
   CIRF
   DSH
   Health Education Abstracts
   LLBA: Language & Language Behaviour Abstracts
   Language Teaching Abstracts
   Technical Education Abstracts

6. The indexes and abstracts for in depth searches in the area of Teaching and Learning provided by comprehensive, detailed classification systems, wide topic and sub-topic diversity, scholarly, hard-data, research-oriented, highly available periodicals and documents are:

   CIJE
   ERIC
   Education Index
   Psychological Abstracts